Lectures

ON THE

PHYSIOLOGY AND PATHOLOGY OF THE NERVOUS SYSTEM;

AND ON THE

TREATMENT OF ORGANIC NERVOUS AFFECTIONS.

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LECTURE I.

ON SPINAL HEMIPLEGIA.

(*Continued from p. 662.*)

Characteristic symptoms of spinal hemiplegia.—Cases of wound and other kinds of lesion of the spinal cord having produced in the limbs, the face, and the eye the paralytic, anæsthetic, hyperæsthetic, and the principal vaso-motor symptoms of spinal hemiplegia.—Cases of incomplete spinal hemiplegia.—Comparison of spinal with cerebral hemiplegia.—Treatment of spinal hemiplegia.

THE following case—the subject of which was a French military surgeon—gives some of the most characteristic symptoms of spinal hemiplegia; but is, unfortunately, silent as regards many other symptoms. It has, however, this rare value—that the author, Dr. N. P. Schveing, has observed the symptoms in himself. The case is related by him in his inaugural dissertation presented to the Paris Faculty of Medicine on the 3rd of July, 1852.* He states that what he observed upon himself is just what I have found in animals after the section of a lateral half of the spinal cord in the cervical region. I only give a summary of his case, passing over some useless details.

CASE 4. *Fracture of the first two dorsal vertebræ, followed by pressure on the left side of the spinal cord; paralysis of voluntary movement on that side, and anæsthesia on the right side.*—In the night of Dec. 3rd, 1849, Dr. S—— was thrown from a dog-cart into a ditch seven or eight metres deep. He struck the left side of his back against the ground, and the dog-cart fell upon him and violently bent his body forward. On striking the ground he felt a strong cracking, and a deep-seated pain in the dorsal region of the spine, and had also a voluptuous sensation, similar to that of coition.

In a few seconds he had a sensation as if both his thighs were dislocated, and as if his legs were deviated to the left. He was left helpless for two hours on the frozen ground; after which, amid great difficulty and much suffering, he was carried to the neighbouring town. He was then in the following condition:—

There was a fixed and unbearable pain, increased by the least movement, located in the superior third of the dorsal region of the spine. A not less intense pain existed in the nape of the neck and in both forearms. The spinous processes of the first two dorsal vertebræ were depressed, and deviated to the left of the median line. The research for crepitation was, very rightly, abstained from.

On the right side of the body there was incomplete anæsthesia, increasing in intensity from the clavicle down to the mammary region. Below this last region there was an absolutely complete loss of feeling, occupying the whole half of the trunk and of the scrotum, the testicle and the lower extremity. In the trunk this anæsthesia was limited, in front and behind, by the middle line.

On the left side of the body there was incomplete paralysis of motion in the arm, with perfect loss of motion of the extensors of the fingers, and an absolutely complete paralysis of the lower limb. In the iliac fossa of that side there was a feeling of heaviness.

In contrast with the excessive lack of tonicity, the extreme flabbiness of the muscular system generally, there was a great tension of the abdominal wall, and the penis was in a state of strong and painful priapism, which lasted several days. Both the bladder and the rectum were completely paralysed.

A deep-seated painful sensation, apparently coming from the solar plexus, at once occurred whenever he heard the slightest noise, even that of the human voice. This sensation radiated from the epigastric region to all other parts of the abdomen.

Gradually photophobia appeared, and became so great that it was impossible for him to bear the least amount of light.

One of the most alarming symptoms was, that respiration became so embarrassed, so difficult, that several times there was a threatening of asphyxia. Circulation had become so languid that all attempts to bleed failed. There was a general coldness all over the body.

He was first treated by applications of leeches, and when the circulation and the temperature of the skin had improved he was bled. The urine was withdrawn by means of a catheter.

On the 9th December (six days after the accident) he was carried to the military hospital at Nancy. He became so cold again, from having been exposed to the fresh air, that applications of heated bricks and bottles of hot water had to be made along his lower limbs. A brick applied too hot to the sole of the right foot produced a deep burn, which he did not feel: this took very long to heal.

For eighteen days, from the 9th to the 27th, all the prominent symptoms persisted, excepting that the shooting pains in the upper part of the back ceased to be constant and became intermittent. A painful spot on the perineum was seized with mortification. The treatment during that period consisted in frequent wet-cupping on both sides of the spine, general bleeding, and purgative enemata.

After that time he slept better, and began to have some slight movements of the toes of the left foot and afterwards of the leg. Together with the return of voluntary movement, there was constant formication in those parts.

On Jan. 7th he began to leave his bed, and subsequently passed a short time every day in an arm-chair, suffering almost only from a sensation of great heaviness, as if a considerable weight inside the thorax pressed it forward—a sensation which was very fatiguing. The whole treatment then consisted in tepid baths, his diet being very nourishing, and his digestion active.

On Jan. 22nd he began to take a few steps, unassisted, and a few days afterwards took a drive in a carriage. He then noticed the following symptoms: a gradual descent of the troublesome feeling of weight which had so long remained at a fixed place in the thoracic cavity; a marked dryness of the skin of the right side, which was still deprived of feeling; formication in the sole of the right foot; an extreme friability of the nails; a notable diminution in the size of the legs and thighs. Against these symptoms sulphur baths and ammoniacal frictions on the spine were used. The urinary excretion returned almost to the normal state, but there was still a great paresis of the rectum.

During the next three months he had a return of rather frequent painful contractions along the spine, but he succeeded in obtaining relief by applications of antimony. In May, 1850, he went to Bourbonne, to undergo the thermal treatment against what remained of his affection, and especially the extreme weakness of the lower limbs, a great stiffness of the pelvic muscles, a retraction of the fingers of the left hand, with an incomplete paralysis of the bladder and rectum.

At least the most essential symptoms of spinal hemiplegia existed in this case:—

1st. Absolutely complete paralysis of motion in the left lower extremity.

2nd. An incomplete paralysis of motion in the upper extremity of the same side.

3rd. Absolutely complete anæsthesia in the right lower extremity.

4th. Incomplete anæsthesia of the upper extremity of the upper part of the chest on the right side.

Many features of the case seem to show that the pressure by broken pieces of bone took place not only on the left side of the cord, but also (in a very much less degree) on the right side:—1st, no mention of hyperæsthesia in the paralysed lower limb; 2nd, the existence of photophobia in both eyes; 3rd, the extreme difficulty of breathing; 4th, the wasting of both lower limbs; 5th, the retention of urine; 6th, the priapism.

This case is remarkable in other respects than as a case of the kind of hemiplegia I am now illustrating. Cases of recovery after fracture of the spine, although much less rare than most surgeons believe, are certainly not numerous. This is a clear instance of a recovery after that accident. I would not

* This thesis is entitled, "Considérations sur les Lésions traumatiques du Rachis et de la Moelle Epinière." No. 175. Paris, 1852.

say that the treatment, which consisted chiefly of general and local bleeding and of counter-irritation and stimulant baths, has had much to do with the recovery. On the contrary, I think that some harm may have been caused by a part of that treatment. No doubt that there must be less danger in a case in which one of the lateral halves of the spinal cord has in a great measure escaped injury, than in cases of fracture of the spine in which both halves of the cord are crushed or irritated.

The next case of spinal hemiplegia I will mention is, perhaps, the best put on record, previous to my first researches on this subject. We owe it to an able practitioner, Mr. Robert Dundas, who was surgeon to the British Hospital at Bahia, where he observed and published the case.*

CASE 5. *Injury to the left side of the cervical portion of the spinal cord: loss of voluntary movement with increased sensibility and higher temperature of the trunk and limbs on that side; loss of sensibility, with conservation of muscular sense and voluntary movement, and deminution of temperature on the opposite (right) side.*—F. C——, thirty-five years old, fell on his back from a scaffold, twenty feet high, and was stunned for a few minutes. On recovering his senses, he found that his left side from the shoulder downwards was deprived of all power of voluntary motion, but retained its sense of feeling quite unimpaired; and *vice versâ*, that over the right side the power of voluntary motion was perfect, but sensation totally extinct, so utterly annihilated that when first seen by Mr. Dundas, three months after the accident, pricking with needles, or pushing a lancet deep into the muscles, gave not the slightest sensation of pain or uneasiness; yet over this side he had the most complete control and command; the muscles were extremely prominent and powerful, whilst those of the opposite side were particularly flaccid and much wasted, with the foot and hand œdematous. The temperature also of the side and limbs deprived of sensation, but possessing muscular power, was 1¼° Reaumur (3½° Fahr.) below the side which retained sensation without motion, whose heat was rather beyond natural, and sense of feeling morbidly increased. In the right side (the anæsthetic side) he could with the right hand perceive the weight and consistency of external bodies. From the fourth cervical vertebra upwards, motion and sensation of both sides were perfect; and the line of demarcation was so exactly drawn, that it might be defined by a pack-thread surrounding the neck. His intelligence was perfect; his breathing was but very slightly affected; his pulse full and regular. No fever; bowels very hard to move. He has never perspired since the accident, but his skin is soft. Urine passed with some hesitation. Under the influence of large doses of nux vomica he had spasmodic twitches of the muscles of the right side (the side of anæsthesia), and tingling pains with a most disagreeable sensation of heat throughout the right limbs and side (the paralysed but hyperæsthetic side). He improved so as to have at times some control over the left arm and leg, and so as to be able to feel he was touched when a lancet was pushed into the right arm, but he had no distinct sensation of pain. On the left side he was morbidly sensitive, the slightest touch or motion causing acute pain.

In 1862, in London, I had the pleasure of seeing Mr. Dundas, the surgeon who published this case, and I learned that the patient was soon lost sight of, and that nothing more was known about the case than what I have reported. No swelling, no deviation of the spine, in the neck indicated either a fracture or a dislocation, in this case. Most likely a concussion occurred, causing a hæmorrhage in the upper part of the cervical region of the spinal cord, in its left lateral half. In many respects, and especially on account of the seat of the injury being above the origin of the nerves of the upper extremities, this case resembles that of T. R——, the third of the cases I have reported. The most essential symptoms of a complete spinal hemiplegia have been observed in this case. There were:

On the left side.	*On the right side.*
Complete paralysis of voluntary movement.	No paralysis and conservation of the muscular sense.
Temperature high.	Temperature more than 3° F. below that of the other side.
Morbidly increased sensibility.	Absolutely complete loss of sensibility.

The injury in the following case, although it occurred pretty much at the same place as in the preceding one, produced less marked effects, the spinal cord having probably received only an incised wound. It was reported by Dr. J. M. Farrington, assistant-surgeon to the Bellevue Hospital, New York.* I only give an extensive analysis of the case, omitting useless details.

CASE 6. *Wound of the cervical region of the spinal cord: paralysis of voluntary movement of the right side, and constriction of the pupil on the same side; anæsthesia on the left side.*—W. B——, aged twenty-five, was admitted into hospital on Nov. 28th, 1857. On the night of June 30th of that year he was stabbed in the neck with a dirk knife. He fell down insensible, and lay bleeding for some time. When he awoke to consciousness a surgeon was dressing the wound, who said it was five inches and a half in depth. The knife entered just behind the left ear, and penetrated the neck obliquely downward and backward towards the spine. The wound healed in a few days.

There was at first complete paralysis of motion. He was not able to move either of his limbs. He, however, had control over the alvine excretions. Three weeks after the injury he noticed a gradual return of the power of motion on the left side. His right pupil was contracted, but his vision was perfect.

There was loss of sensation on the left side, but not on the right. It was not until August that he was able to go about. Toward the end of July there was complete restoration of motion on the left side. He was very much improved, when, in October, he "went drinking" and became worse.

He was quite crippled on admission. The partial paralysis of sensation on the left side and of motion on the right were well marked.

Counter-irritants were applied to the nape of the neck, and the extract of nux vomica ordered in doses of one-third of a grain three times a day. This remedy soon produced twitching of the left side, and on the 20th of January, 1858, it began to affect the right side also. His improvement, though slow, has been constant, and at the time the report was sent to be printed he was able to attend to business.

In this case there was a wound of the anterior parts of the spinal cord, but chiefly of its left half. From the seat of the wound and the direction of the incision of the fleshy parts of the neck on the one hand, and from the symptoms on the other, it appears that the knife, going obliquely from above downwards, from the left to the right, and also backward, entered the left half of the cord, and, after having cut a small part of it, divided a larger part of the right half. After having been paralysed of the four limbs, the patient recovered voluntary movements in the left side, and then presented these essential symptoms of spinal hemiplegia—paralysis of voluntary movements of one side (the right), and an æsthesia of the other (the left). He had also for some time a constriction of the pupil on the side most injured in the spinal cord.

In another lecture I will point out the differences existing between a case like this one, in which the anterior parts (grey and white) of the spinal cord have been wounded, and cases like the first two I have related, in which, on the contrary, the posterior parts (grey and white also) of that nervous centre have been incised. I now pursue the narration of cases of spinal hemiplegia. The next one, of which I will only give an analysis, has been observed in India by an able physician, Dr. H. V. Carter.†

CASE 7. *Injury to the cervical part of the spinal cord: loss of sensibility to painful impressions, to touch, tickling, and temperature, with conservation of voluntary movements and muscular sense in the left side; paralysis of motion and persistence of all kinds of sensibility in the right side.*—J. S——, Indo-European, aged thirty-five, was admitted into the hospital on the 27th of January, 1860. He had fallen from a height of eight or ten feet. When he recovered his senses, the head and neck excepted, he seemed to be paralysed everywhere. Respiration was diaphragmatic, the chest remaining without expansion. After a prolonged period, during which the symptoms varied much, he was, in June, in the following condition:—In the left side almost the whole of the upper limb, the trunk from the breast downwards, and the lower limb, were entirely deprived of tactile sensibility, of the feeling of tickling, of sensibility to painful impressions, and of the power of distinguishing heat from cold. Almost every kind of irritation of that side gave a sensation of heat. The motor power and the

* See the "Edinburgh Medical and Surgical Journal," No. 83, April, 1825, p. 304.

* The American Medical Monthly, vol. ix., Feb 1858, p. 152.

† I have to thank Dr. J. Hughlings Jackson for the knowledge of this case, which is published in the "Transactions of the Medical and Physical Society of Bombay." No. 6. New Series, 1861, p. 3—10, appendix.

muscular sense were hardly diminished in these parts. On the right side, the trunk and limbs, the arm especially, were paralysed; while all the kinds of sensibility persisted unaltered in them.

In October, the patient stated that all along the posterior parts of the trunk and lower limb, and in the sole of the foot, sensibility was still in abeyance; while in the anterior parts of the trunk and lower limb, and in the dorsum of the foot, sensibility had returned. The motor paralysis was much diminished. He walked quite steadily.

Without entering into a discussion of the features of this case as regards the condition of the spinal cord which gave rise to the symptoms, I will say that a concussion of the cervical part of this organ occurred, followed by congestion, if not some slight inflammation, located chiefly in the right lateral half of that nervous centre. The case offers the essential symptoms of spinal hemiplegia: anæsthesia to impressions of pain, touch, tickling, and temperature, with conservation of voluntary movements and the muscular sense in one side, and paralysis of voluntary movements and persistence of the four kinds of sensibility just named, in the other.

(To be continued.)

A CASE OF LARYNGEAL DISEASE.

INFLAMMATION OF LARYNX, ABSCESSES, PARALYSIS OF VOCAL CORDS; TRACHEOTOMY; RECOVERY: WITH PRACTICAL REMARKS.

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THE case of which the following is the history having occurred under the care of Dr. Marcet and Mr. Hillman consecutively, the medical and the surgical reports have been supplied by each respectively.

Harriet C——, out-patient of the Hospital for Consumption, Brompton, aged twenty, came under my (Dr. Marcet's) care, and on the 7th February of the present year I took the following notes of the case:—

The patient has been suffering from hoarseness and loss of voice for the last four months, after sleeping in a damp bed, and now speaks in a whisper. Slight pain in the left side of the throat. On swallowing, she feels as if there was something swollen there, interfering with the act of breathing. I obtained a good view of the larynx with the laryngoscope. The mucous membrane over the left arytenoid cartilage was very much swollen, occupying about one-third of the diameter of the laryngeal opening. The swelling had the circumscribed and glistening appearance of an abscess. On the right side of the larynx the mucous membrane was red. The vocal cords had not their white glistening normal appearance; they were drawn towards each other, not moving at all freely in the act of respiration.

I prescribed a mixture containing iodide of potassium, a solution of sulphate of iron to be injected into the larynx with Gibb's laryngeal syringe, and tincture of iodine to be applied every other day to the throat.

Six days later she suddenly felt as if something had given way in the throat, and, on coughing, brought up a mixture of matter and blood. The next day her voice returned, although weak; it gradually improved, and on the 28th of February was tolerably strong. I examined her larynx on that day: there was no swelling to be seen; the mucous membrane of the right epiglottidean fold and false cord were red and relaxed; no ulceration.

I again saw the patient on June 5th. Up to the previous fortnight, or for about three months, her breathing had been quite free, and voice good, but with slight hoarseness. Since then, however, respiration had again become difficult; she complained to me of pain in the throat, and air could be heard rushing through the obviously contracted larynx. A laryngoscopic examination showed the left vocal cord to be apparently wanting in substance, probably from its congested condition; the right cord was healthy; the mucous membrane over both arytenoid cartilages was much swollen, with a deep sulcus between them; the vocal cords receded from each other imperfectly. I applied a solution of nitrate of silver to the larynx, and prescribed one of sulphate of zinc to be injected into the larynx with the laryngeal syringe. On auscultation of the chest, all over the left side in front mucous râles were heard; on the right side, at apex, prolonged and bronchial expiration, and some mucous râles lower down. Shade of dulness at right apex, and pain under that spot, on percussion.

On June the 8th, the laryngeal tumour having increased in size, and being obviously an abscess, I made a first, though ineffectual attempt to incise it with Mackenzie's laryngeal scarifier. I again tried on the next day to open the abscess, but the swelling was so soft that it constantly yielded, instead of being cut into, as I pressed the scarifier upon it. I succeeded, however, in my object, as shortly after the patient left me she expectorated a large quantity of matter, and was thereby greatly relieved. On June the 18th, or nine days later, she felt no pain or swelling in the larynx, but the breathing was not quite so free as before. Six days afterwards her voice was much improved, and was indeed tolerably good; but she complained of the difficulty she experienced in the act of breathing. I have no record of the condition of the larynx on that day, but the difficulty of breathing gradually increased, and on the 20th July I observed her vocal cords to be in close approximation, leaving just room enough between them for air to pass; they remained fixed in that position and firmly stretched. The action of the abductor muscles appeared all but ineffectual, while that of the laxors could apparently still be exerted to some extent, as she could speak in a fair tone of voice. There was no inflammation in the larynx to account for this state of the cords. I tried various kinds of treatment, but nothing except the application of galvanism to the cords appeared to give the patient any relief. At the same time her general health began to fail, and she lost flesh rapidly. The temperature of her body on the 27th of July was 99·5° F. under the tongue. On the 28th she complained of bringing up her food, and of pain in the stomach; tongue red. Up to that date I frequently examined the larynx, and could see no improvement; indeed, the space between the cords, available for respiration, was becoming less and less, and her features were expressive of the most painful state of dyspnœa. I then recommended her to apply at the Westminster Hospital, feeling assured that no other means but tracheotomy could save her life. The operation was successfully performed by Mr. Hillman on the 4th of August.

On Oct. 16th I examined the patient's larynx with Mr. Hillman. The left cord is somewhat atrophied or less developed than the right, but exhibits its healthy glistening appearance. With that exception the larynx is quite sound, and the cords are seen moving quite freely in the act of respiration; breathing as easy and free as could be wished. Her health is now good, her appetite excellent, and she has regained flesh and a ruddy colour of the face.

This is the third case I have had under my care of dyspnœa from closure of the glottis, owing to spasm of the extensor or loss of power in the abductor muscles of the vocal cords. Although the first two cases improved under medical treatment, I fear no permanently favourable change could be obtained. In such cases I would begin by trying what medicine could do; but should no decided or permanent relief ensue, I should certainly advocate the operation of tracheotomy, with the primary object of giving relief, or averting death from impending suffocation, and next with the view of curing the diseased state of the larynx. It is very remarkable that the mere fact of air no longer passing through the laryngeal passage, and of the lungs being enabled to expand freely, sufficed in the present case to cure the disease.

SURGICAL TREATMENT.

(From Mr. Hillman's notes.)

Miss H. C——, having been so advised by Dr. Marcet, presented herself on Aug. 1st, 1868, for admission into the Westminster Hospital under my (Mr. Hillman's) care.

The gravity of the case was at once apparent, and she was kept in a state of perfect quietude, in as uniform a temperature as possible, and carefully watched for a couple of days, when it was evident that medicine had done all in its power, and that the sister art of surgery must be appealed to for its special aid.

Present state.—She now suffers continually from severe dyspnœa, whilst occasional exacerbations of breathing-difficulty threaten immediate suffocation. She presents that marked apprehensive anxiety of countenance familiar to surgeons in cases of physical obstruction to the breathing, other functions remaining as in health, and can speak only in a low whisper. The breathing is accompanied with noisy inspiration and expiration, but not such as denotes croupy obstruction of the air-passages. There is but slight expansion of the chest in inspiration, which is effected only by great effort of all the inspiratory muscles, primary and secondary, the slight expansion that occurs being uniform on the two sides; there are no abnormal bronchial sounds, no crepitation, no undue dulness of the chest, and no expectoration of blood or pus. There is no disease visible on examination of the mouth, fauces, or pharynx. The laryngeal mirror showed the epiglottis to be sound; both of the upper or false vocal cords somewhat thickened (probably the seats of the previous abscesses, one of which was so adroitly punctured by Dr. Marcet); the lower or true vocal cords not apparently changed in structure, but remaining parallel one with the other—probably from paralysis of the abductor muscles, by which they should in health be separated laterally one from the other in inspiration,—and so all but closing the immediate entrance to the lower division of the cavity of the larynx. There are no traces of ulceration of the epiglottis or of the larynx.

Her present state of danger and distress thus appeared to be due—firstly, to the permanently almost closed condition of the chink of the glottis, produced by the approximation of the true vocal cords; secondly, to the thickening of the upper or false vocal cords, produced by inflammatory effusion (these two causes serving to account for the permanently distressful breathing); thirdly, to the occasional occurrence of spasmodic contraction of the laryngeal muscles, accounting for the greatly increased oppression of breathing experienced from time to time.

The indications for surgical relief, therefore, seemed plain—namely, to make and maintain an artificial opening into the air-passages, so that the air might be enabled to pass into and out of the lungs below the several causes of obstruction, and without previously passing through the larynx;—and this for two purposes: firstly, with a view to the immediate preservation of life, by getting rid of the threatening condition of matters by which the air-passages might at any time be completely and fatally closed; secondly, with a view to the patient's ultimate recovery, by placing the diseased and disordered parts for a time, longer or shorter as might prove necessary, in a state of rest, with the hope that they would thus be restored to a condition of health.

Accordingly, on the 4th of August, 1868, I performed the operation of tracheotomy (the patient lying in an easy unconstrained position) by carefully dissecting down to and exposing the anterior surface of the trachea, which being held steadily and drawn somewhat upwards by the use of a sharp hook set in a scalpel-handle, the three upper rings were divided from below upwards in the mesial line; the dilating forceps, which I commonly employ, having been introduced through the wound into the windpipe, so as to make the artificial opening widely patent, the secretions were coughed out, and the tracheotomy-tube was without difficulty passed into the trachea.

The tube used was a double one, of silver—an inner and an outer, closely adapted the one to the other, the inner at its distal or tracheal end projecting beyond the outer,—presenting a circular transverse section, of uniform diameter throughout, well curved, with an oval opening at its greatest convexity, and with the apertures of entrance and exit at right angles one with the other, and of as large a diameter as the windpipe would admit, with a shield in front wide enough to overlap the margins of the external wound: a form of tube which answers admirably when once inserted, though its first introduction is somewhat difficult, especially if the surgeon be not provided with the dilating forceps previously mentioned.

Less than half an ounce of blood was lost during the operation. Chloroform was not employed, as I was desirous to avoid the occurrence of vomiting which now and then results from its use, and which would have caused much discomfort in this case. The patient bore the operation with great calmness, and the relief afforded was so immediate and so great as to cause her to express her comparative comfort in strongly grateful terms. When visited in the evening she was found breathing with ease, the tube admirably allowing the free passage of air to and from the lungs, and causing no irritation or pain.

The subsequent treatment consisted in the maintenance, as far as possible, of a uniform temperature, keeping the tube always clean and free from all obstruction; the allowance of digestible, nutritious food, as much as she liked, with wine; and citrate of iron and quinine as a tonic; with small doses of calomel, as probably likely to facilitate the removal of the thickening of the upper vocal cords.

On the 10th of August, Miss C—— looked much improved in health, with a clear complexion, breathing quite easily at the rate of about 20 in a minute, having a good appetite and cheerful manner, and speaking without difficulty by placing her finger over the orifice of the tube. She improved uninterruptedly until the 1st of October, when the tube, which she had now worn for about eight weeks, being entirely removed, and the wound completely occluded, her breathing through the natural passages proved so satisfactory during some hours that the tube was not replaced.

On the 7th of October, 1868, she left the hospital, with all difficulty in respiration removed, and in satisfactory health—a result to which the patient's own tranquil manner and well-ordered conduct much contributed.

Remarks.—There are some features besides those of diagnosis in the foregoing case which appear worthy of notice in a practical or curative point of view. Diseases of the larynx and trachea constitute a class of cases which are attended with much responsibility on the part of the medical adviser, solicitude on that of the relatives, and no little anxiety and distress to the patient. The operation of tracheotomy is possibly not so frequently had recourse to as it might advantageously be, and the determination in a case of the period at which the operation becomes necessary is oftentimes attended with difficulty; it seems not unfrequently regarded rather as a last resource, to be employed after various supposed remedies have been tried and found to fail, and much invaluable time has been thereby lost. The result is just what happens so often with the operation for strangulated hernia—the operation fails to save life, not from any want of power in itself so to do, but on account of fatal procrastination in its employment; it is put off until it is but too evident that death is at hand, and then it is done perhaps "to give the patient a chance"—and what is the value of such a "chance" when no reasonable grounds of hope remain? The operation fails—life is lost—it is done "too late."

Tracheotomy, when timely and skilfully employed, in suitable cases, is an important means of cure, a potent agent for good, and is not, in my opinion, by any means necessarily attended *per se* with the amount of danger sometimes attributed to it. In the present case, it might have appeared to some that the operation might have been delayed for a day or two, or possibly a week; but even if the patient's life had not been suddenly cut short during such delay, she undoubtedly would have had only a prolonged period of distress; and I cannot doubt, had further delay been permitted, the result would not have been such as is here recorded.

The kind of tube employed is a matter of the utmost importance, many of the tubes supplied by the instrument makers being thoroughly unsuited to the purpose. The tube should be of such a diameter that the patient can breathe through it without any voluntary exertion, being always as large as the windpipe will admit; it should also be long enough to pass some little distance into the windpipe—they are frequently made far too short for the purpose. The oval aperture situated at the greatest convexity of the tube is also very serviceable, as it permits of the passage of air through the natural channels (in so far, at least, as their diseased condition will allow), as well as through the artificial opening, and so enabling the patient to have the advantage of all the breathing-air possible.

Supposing the operation to have been satisfactorily performed, there is, perhaps, no other operation in surgery in the after-treatment of which more assiduous and constant supervision and watching are required from the surgeon and the nurse. The patient should not be left unattended day or night until all danger from blocking-up of the tube has passed. There is a great tendency for the channel of the tube to become obstructed by mucus of the most tenacious character, and so to produce suffocation.

The great advantage of employing a double tube, with the tracheal end of the inner tube projecting beyond that of the outer tube, depends on the facility with which it may be cleansed: the inner tube is merely lifted out from the outer one (the finger closing its opening during its withdrawal), cleansed in boiling water, and replaced; the breathing going on without interruption through the outer tube whilst the inner one is being cleaned.

The maintenance of a warm temperature in the patient's room is another condition necessary to his well-being; because, whilst the breathing is carried on through the artificial opening, the air enters the lungs at once, without being previously warmed, as it is in normal inspiration by having passed through the mouth, nose, and throat. And the unaccustomed coolness of the inspired air, if this precaution be not observed, has a tendency to cause an inflammatory condition of the pulmonary mucous membrane, by which the case is complicated and recovery rendered more doubtful. The inspired air may, in cold weather, be somewhat warmed by placing some soft, porous, woollen covering on the front of the neck over the tube, acting much after the manner of a respirator.

When, after a time, recovery seems to have taken place, some precautions are desirable in the withdrawal of the tube. When it is imagined that the tube may probably be dispensed with, some experimental trials should be made from time to time to ascertain how far the patient can really do without it, as much mischief has sometimes followed its too early removal. The orifice of the tube may be kept closed, during gradually longer and longer periods of time, for a few days; when, if it be evident that the breathing can be performed without the tube, and whilst the wound is completely closed, the tube, having served its purpose, may be finally removed.

ON THE DETECTION OF LUNG-TISSUE IN THE EXPECTORATION OF PERSONS AFFECTED WITH PHTHISIS.

BY SAMUEL FENWICK, M.D.,

ASSISTANT-PHYSICIAN TO THE LONDON HOSPITAL, LATE ASSISTANT-PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

(*Concluded from page 725.*)

IN seven cases the presence of tubercle in the lungs was suspected on account of hæmoptysis having occurred, although there were no physical signs of disease. In none of these could lung-tissue be detected in the sputa.

A female, fifty-six years of age, suffered from hæmoptysis to a considerable extent for many weeks. There was no lung-tissue in the sputa. She had cough, emaciation, and a pale, yellowish colour of the skin, and from her appearance I suspected the presence of cancer of the lung.

Since I have frequently found in cases of hæmoptysis occurring in connexion with tubercle, not only particles of pulmonary structure, but also fragments of bloodvessels in the expectoration, I think it probable that the examination of the sputa may be of use in determining malignant affections of the chest. For the following case I am indebted to Dr. Dobell:—

A man, fifty-three years of age, had been ill for three months with hæmoptysis. He referred his complaint to a strain. There was deficient resonance, commencing two inches below the right collar-bone, and extending downwards to the liver. The sputa were examined, and no lung-structure could be discovered. On post-mortem examination the lung was found to be the seat of extensive malignant disease.

I have noted 27 cases in which, along with cough and expectoration, there were some or other physical signs of consolidation in the upper lobes of the lungs—namely, a difference in the resonance on percussion between the two sides of the chest, accompanied by feebleness of inspiration, interrupted inspiration, increased expiration, tubular respiration, dry rhonchus, occasional "mucous click," or increased vocal resonance. Most of the cases were repeatedly examined with the stethoscope, but with respect to many of them I was unable to satisfy my mind as to whether or not tubercle was present.

The expectoration of each was examined only once, and particles of lung-tissue were discovered in 21 cases. Of the 6 in which the microscope failed to find elastic fibre, 2 shortly afterwards ceased to attend at the hospital, 2 completely lost the chest symptoms of which they had complained, one afterwards proved to be a case of bronchitis, and the remaining one was still of a doubtful nature when I last saw it.

When I commenced to use the microscope for the detection of phthisis I was much surprised at the frequency of those cases in which pulmonary structures could be found in the sputa, where, according to the opinion of auscultators, the tubercle was in a crude condition. I suspect that in many of these cases ulceration is proceeding in the deeper portions of the lung, whilst the sounds heard through the stethoscope only indicate the condition of the parts nearer to the surface.

I have recorded 24 cases in which there were well-marked stethoscopic signs of "softening of the tubercle" in the lungs. In every case a single examination showed the presence of lung-tissue in the sputa. All of these proved to be cases of phthisis, and some of them have been under observation for two or three years. As, however, there is seldom any difficulty in the diagnosis in this stage of the disease, the use of the microscope is less needed.

The stethoscope indicated the existence of cavities in 43 cases, and pulmonary elastic fibre was found in the sputa of all. I have mentioned the occurrence of fragments of bronchial tubes and of pulmonary cells where auscultation afforded less serious indications only; I therefore endeavoured to ascertain whether there was any variation in the sizes of the fragments of lung in the sputa corresponding with different periods of phthisis. The sizes of the particles were noted in 69 cases, and I found that the proportion of bronchial tubes is smallest where well-marked dulness, along with mucous râles, shows that the cellular structure of the lung is chiefly implicated. The bronchial tubes were of greatest size in the cases presenting the largest cavities. The size of the fragments of lung varies greatly, but, as a general rule, the finer the crepitation the more the smaller pieces abound.

The examination of the sputa is often of use in determining the progress of the case. Chronic phthisis seldom proceeds at a uniform rate, periods of great destruction alternating with intervals of comparative cessation of the ulcerative action. The rapidity of the disease of course greatly depends on the frequency of these intervals.

Sometimes the ulceration entirely ceases. I examined after death the contents of a cavity which occupied the whole of the upper lobe of the lung, the walls of which consisted of a thin layer of lung, interposed between a cap of thickened pleura and a dense membrane lining the cavity. The mucus in it showed no trace of lung-tissue.

Whenever I have found a marked difference in the amount of lung expectorated at different times, I have found the case eventually to assume a very chronic form, notwithstanding a rapid destruction may have taken place at the commencement of the disease.

A man, forty-five years of age, was admitted under my care, at the Victoria-park Hospital, in December, 1865. He stated that he had been only three weeks out of health. He had great thirst, and a dry tongue; pulse 108; dulness on percussion and mucous râles below the right clavicle. He lost six pounds in weight during the next six weeks; and auscultation afforded evidence of a cavity. In April, when he had somewhat improved, I found 108 fragments of lung in the sputa of twelve hours. In May the sputa still contained lung; but in July I could detect none, and by the end of that month I could still only find a few filaments. His general health began now to improve; and he remained so well for the next two years that he only lost two pounds in weight. When I last saw him he complained chiefly of dyspnœa; but I heard lately that he had died very suddenly.

As a general rule, the increased ulceration of lung is accompanied by an increase in the fever and emaciation, as though the destruction of tissue was a result of pneumonia attacking the diseased part; but, in other cases, I have found the increased destruction to precede the augmented constitutional disturbance. In some the fever is connected only with bronchitis; and although the amount of expectoration is very great, the quantity of lung-structures contained in it remains the same. Cases of this latter kind are more hopeful than of the former. I believe the microscope affords at present the only means of distinguishing between them.

I had hoped by means also of the microscope to have been able to indicate the class of cases in which confinement to the heated air of the hospital is most advantageous. Of 17 cases in the hospital, the average amount of expectoration each hour was 2 cubic centimetres; whilst amongst the out-patients it amounted to 3 cubic centimetres. Of the in-patients, whose sputa I carefully examined, 2 particles of lung-tissue were, on the average, expectorated in the hour; amongst out-patients, 5 fragments per hour. This comparison is, however, open to a grave objection, for although I was careful to compare in each class only those who presented similar physical signs, yet it must be remembered that admission as an in-patient is determined by the degree of probability of the case receiving benefit from treatment in the wards. It is very striking,

however, that, as a general rule, the pulse is more rapid, and the tendency to perspirations greater, amongst the in-patients than the out-patients; showing that, although the heated air tends to lessen the destruction of the lung and the bronchitis, it quickens the circulation. This is perhaps the explanation of a fact observed by others, that patients in the wards of chest hospitals are more liable to hæmoptysis than those treated in the out-door department.

There is a growing conviction amongst pathologists that physicians include under the term "phthisis" different affections agreeing only in their tendency to produce ulceration of the lung. We cannot distinguish these affections from each other by auscultation, but we may reasonably hope that the examination of the sputa may throw some light upon this subject. Generally, the pulmonary elastic fibre presents under the microscope a clear and well-defined edge. But in some cases it has a dull and very granular appearance; showing that the elastic tissue itself has undergone a change. The number of cases presenting this peculiarity is small; I should say not ten per cent. I have notes of nine cases in which it was present, and in all the disease was chronic. One had suffered from cough for eleven years, originating in whooping-cough; one had had chest symptoms for nine years, one for eight, one for seven, two for six, and two for three years. Six of these were males, and three females. With two exceptions, all were between thirty and fifty years of age. Seven had hæmoptysis; in one no hæmoptysis had occurred; the history of the other is imperfect on this point. The destruction of lung was very slowly going on in all but one case.

We might suppose that in this class the tubercle is a secondary affection; but generally hæmoptysis is the first symptom. I am inclined, from the history and the slow progress of these cases, to believe that a long interval has elapsed between the formation and the elimination of the tubercle, during which the pressure of the morbid product has altered the normal condition of the neighbouring structures.

In others, I have found the fibres surrounding the cells greatly increased in number, and instead of appearing parallel to each other, they have formed a matted, confused layer. This I have only met with in very chronic cases, and I suspect that it indicates a form of disease in which the original morbid change affects especially the fibrous structure of the organ.

Occasionally the air-cells contained in the sputa are of unusual size. This appearance is not the result of the coalescence of cells, but of the distension of single cells, the fibrous tissue being traceable throughout the whole circumference. It is therefore probable that in these cases the tubercle has been deposited in a portion of emphysematous lung, or that the air-cells subsequently have become dilated.

It is necessary that attention should be paid to certain points in the microscopical examination of sputa, lest we should pass over any elastic fibre, or mistake for it other structures that may be present in the mucus.

The most convenient strength for the solution of soda is eighteen grains to the ounce of water. I generally dissolve pure soda in distilled water, instead of using the liquor sodæ of the Pharmacopœia; because, as the latter is not much used, we cannot be sure of its being as caustic as what is freshly prepared. Generally, the expectoration requires an equal quantity of the soda solution in order to dissolve it, but if the mucus be unusually tenacious more will be necessary.

It is advisable to use a glass beaker for the boiling, as it is more easily cleaned than a flask. The expectoration should be stirred from time to time with a glass rod whilst it is being heated. Usually it becomes as liquid as water as soon as it reaches the boiling point. It should be immediately poured into a large conical glass, and three or four times its bulk of cold distilled water should be added, so that the fragments of elastic tissue may be at once carried to the bottom.

Great care should be taken that the dipping tube is perfectly clean. In one of my earlier experiments I found elastic fibre in the expectoration of a case of recent bronchitis. I had shortly before used the same tube in the examination of some sputa sent by a person suffering from phthisis, and with a new tube I could find no further trace of lung-structures.

There is no difficulty in examining the elastic fibre on a common slide, but it is always advisable to use cells. These are best made of vulcanite fixed with cement; the alkaline solution acts rapidly on the marine glue generally used to attach cells.* The higher powers of the microscope are never required in this method of examination. I generally use a strong eye-piece, and have an inch-and-a-half and a half-inch object-glass fixed to the instrument by a "double arm."

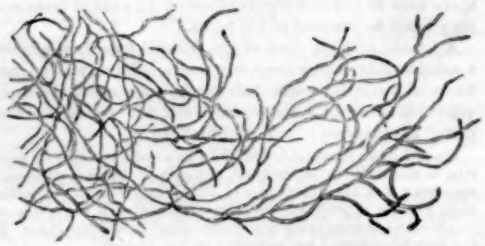
Before beginning to examine the sputa of persons affected with phthisis, the practitioner should acquaint himself with the appearances of other structures that may be mistaken for lung-tissue. Figure 3 shows the elastic fibres of the fascia of

FIG. 3.

Fibres of elastic tissue from the fascia of beef after boiling in soda. Magnified 150 diameters.

a piece of beef after being boiled in soda: their coarseness is sufficient to distinguish them from pulmonary structures. The serous membranes (Fig. 4) more nearly approach pulmonary

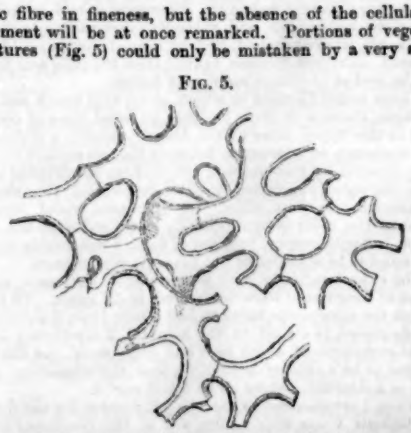
FIG. 4.



Fibres of elastic tissue from peritoneum after boiling in soda. Magnified 150 diameters.

elastic fibre in fineness, but the absence of the cellular arrangement will be at once remarked. Portions of vegetable structures (Fig. 5) could only be mistaken by a very super-

FIG. 5.



A portion of vegetable structure after boiling in soda. Magnified 150 diameters.

* Glass cells of this kind may be obtained of Messrs. Murray and Heath, opticians, Jermyn-street.

ficial observer; the want of fibres, and the larger size of the cell-walls, serving to distinguish them.

We frequently meet with fungi and casts of tubes in the sputa. Both are chiefly found in the latter stages of phthisis; and the casts are, I believe, thrown off from various parts of the mucous membrane of the throat and larynx. (Fig. 6.)

FIG. 6.

A cast of tube from the expectoration of a person affected with phthisis. Magnified 150 diameters.

It might be supposed that the microscopical examination of the sputa would be always a tedious process, but this is not the case. I have frequently detected the elastic fibre in from six to ten minutes; but where there is reason to suspect that only a small quantity may be present, it is advisable to put aside the liquefied sputa for a few hours.

The amount of lung-tissue varies greatly in different cases. In one, I counted as many as eight hundred fragments in mucus that had been coughed up in twelve hours; and we frequently find from fifty to sixty pieces where, from auscultation, we should have expected the destruction to be only slight.

I have detected numerous fragments in the mucus expectorated in half an hour; but as the amount of lung expelled seems to vary at different times of the day, the only safe plan is to liquefy the whole of the sputa of twenty-four hours, or if it is difficult to obtain the expectoration for so long a period, it is advisable to examine what is coughed up during the night and early morning.

I trust that the facts in the present paper will ensure for this method of diagnosis a more extensive trial than it has hitherto received. To the young practitioner it will be often a comfort to confirm by the eye the diagnosis formed from the evidence received by the ear, whilst cases are constantly occurring to the most experienced auscultators in which the aid of the microscope will be of value. The microscope can never rival the stethoscope in its application to a variety of cases, but, like the spectroscope in chemistry, it often attains results in a few minutes that the means in ordinary use require a length of time to accomplish.

Harley-street, Nov. 1868.

CASES ILLUSTRATIVE OF THE NECESSITY OF AN EARLY REMOVAL OF AN EYEBALL WITH LOST VISION IN CONSEQUENCE OF ACCIDENT.

BY ROBERT M'KEAND, ESQ.,
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To those members of our profession whose attention is more particularly directed to ophthalmic surgery the question of enucleation of the eyeball cannot fail to be a subject of much interest. In all cases requiring this operative proceeding there has been some violent injury, succeeded in general by total loss of vision in the eye, with a tendency to inflammation and disintegration of the structures in the other eyeball.

The principal difficulty lies in giving an opinion as to what period after the accident this operation should be performed. It is now well known that after the eye has sustained such a formidable blow as to lead to its destruction, inflammation of an irritative character is set up in the uninjured eye, which is commonly known by the term "sympathetic inflammation." It is desirable to suggest some systematic plan or rule to determine at what time medical treatment should cease; and, anticipating future trouble, when the injured organ has to all appearance become quiescent we should recommend operative interference. It must frequently have fallen to the lot of the ophthalmic surgeon to be consulted on this subject, and in my own person I have found it a very difficult task to convince the patient of the necessity of resorting to this proceeding, particularly as at what period this destructive mischief may commence the surgeon cannot predict; and the patient, living upon the hope that he may escape the calamity, delays as long as possible the *dernier ressort;* in fact the case is very frequently presented to him when the secondary mischief has already begun. I think it behoves us to point out to our patients the serious consequences which will inevitably result by waiting for such an event, as it is agreed that when once the sympathetic excitement has commenced, medical treatment is of no avail; and unless complete enucleation is at once resorted to, generally speaking a very brief period is sufficient to produce an amount of mischief which is not to be repaired.

An eye slightly dimmed in its vision recovers its integrity frequently enough after the operation of enucleation of its fellow; but, on the other hand, so difficult is it to say to what extent the mischief has proceeded, that in my opinion the most prudent course to adopt is to remove the eyeball as soon after the accident as the patient's health is restored.

Abscission of the eyeball has been considered by some surgeons to be a sufficient check to the progress of sympathetic trouble, and no doubt both patient and surgeon have been anxious to accept such a proceeding on account of the great advantage obtained in forming a bed for an artificial eye, which should possess as much mobility as possible. I have frequently, against my better judgment, been induced to make a trial of its efficiency by the anxious persuasions of my patient; and in addition have often tried how far the removal of a large piece of the iris might effect a beneficial purpose; and I must candidly confess that, after many years' experience, I remain firm now, and never consent to adopt any other measure than perfect enucleation in all cases. I cannot recall one successful instance after abscission or iridectomy but the complete removal of the eyeball has always had to follow; and with this result, that by the delay caused by palliation, the other eye has had the opportunity of a more extended period to assist in its decay, which in many of my cases has been most serious. I now, therefore, whether perception of light remains or not, always propose its removal sooner or later.

A certain difference of opinion must necessarily exist amongst operators, according to the variety of cases which occur; but in considering the subject in its entirety, from a somewhat lengthened experience, I express myself as a strong advocate for this operation, and that at its earliest date; erring thus, if at all, on the right side.

If the operation be well performed, a large bed of muscles remain, which after all, when an artificial eye is placed on them, has a certain amount of mobility; but the lid, drooping more than it does in cases of abscission, conceals any defect: one eye appears slightly less than the other, but presenting nothing remarkable to the eye of a stranger.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

EXCISION OF THE HEAD OF THE HUMERUS FOR UNREDUCED DISLOCATION—MEDULLARY SARCOMA OF THE THIGH—REMOVAL OF THICKENED AND SUPPURATED BURSA PATELLÆ.

(Under the care of Mr. PAGET.)

WE saw some interesting operations performed by Mr. Paget on Saturday, of which a brief account may be usefully placed on record.

1. A soldier had luxated the head of the right humerus forwards a twelvemonth ago when on board ship. Two months afterwards, at Calcutta, an unsuccessful attempt had been made at reduction; and eight months ago Mr. Willett and Mr. T. Smith both endeavoured, but without effect, to reduce

the limb. It seemed to them that there was a united fracture as well as dislocation; and it turned out that this was the case. The man had refused, although he was strongly advised, to "put up with" his deformity; and certainly it was hard to bear, for the humerus was quite immovable. He insisted upon something being done; and so Mr. Paget took out the head of the bone. A semilunar incision was made from near the outer end of the clavicle to the tip of the acromion, and this was subsequently extended down the arm for an inch or two. The operation was long and tedious, great difficulty arising from the abnormal position of the humerus, and from the bony connexions, which stretched not only from the head but also from the shaft of the humerus to the glenoid cavity and neck of the scapula. Mr. Paget thought, from the way the elevator slipped into soft bone about the neck, that there must have been fracture at this point extending down the bone. This of course complicated the case very much, a large amount of callus helping to fix the head of the bone very firmly in its unnatural position.

2. A muscular man of fifty got a blow on the middle of the left thigh anteriorly seven months ago; and this was followed, according to his account, by a small swelling, appearing two months ago, and rapidly acquiring the size it now presented of a couple of fists. The anterior muscles of the thigh seemed to be bulged forward by some hardness beneath them, which was diagnosed by Mr. Paget and some other surgeons as a medullary sarcomatous tumour, whilst suppuration, blood coagulum, hydatid, fatty tumour, were suggestions made by some who saw the case. A fine trocar produced a little yellowish-red fluid. Then a scalpel, dividing the muscles, speedily laid bare a tumour, which was quickly enucleated, and proved to be a remarkably characteristic specimen of medullary sarcoma. The cerebriform appearance was curiously distinct. The wound, in which there was necessarily left a certain amount of unhealthy substance (although all was taken away that it was possible to remove), was lightly plugged by lint dipped in perchloride of iron, and left open. Mr. Paget remarked upon the melancholy prognosis in the case. The disease would return in some internal organ probably within one year, almost certainly within two years, and the man would die. It is worth noting that the man presented about the arm and groin a few little nodules supposed to be fatty in their nature.

3. A woman of thirty-five had a greatly enlarged bursa patellæ of the right knee, which Mr. Paget dissected away. It was as big as a small orange, and when bisected it showed walls thickened to the extent of three-quarters of an inch, crowding in upon the synovial membrane, which could be seen altered by inflammation and covered with lymph and pus. Some of the pus had escaped through the skin by little ulcerated openings resembling very closely the tertiary syphilitic ulceration often seen about the patella. This was just a housemaid's knee, Mr. Paget said, where inflammation had been followed by enormous thickening of the bursal walls, and there was nothing to be done for it save removing it. The wound was left without sutures, in case of oozing.

Mr. Paget was to have tied the external iliac artery in a case of femoral aneurism, but time did not admit of the operation being performed. A fortnight previously he tied the external iliac for a rapidly increasing femoral aneurism, and the man is doing very well.

KING'S COLLEGE HOSPITAL.

CARBOLIC-ACID TREATMENT OF SUPPURATING AND SLOUGHING WOUNDS AND SORES.

(In the practice of Mr. JOHN WOOD.)

THE carbolic-acid treatment has been employed by Mr. Wood in a good number of cases *pari passu* with the more simple forms of water-dressing, and with no dressing at all further than simple cleanliness of the neighbouring parts. The carbolic acid has been used in various forms—namely, as a simple aqueous solution; as a solution in oil, as used in the French hospitals; and as mixture with putty, in the manner introduced by Professor Lister. The last-mentioned method has been employed especially in the treatment of compound fractures and of large chronic abscesses, with all the precautions against the admission of air &c. recommended by Lister and Syme. A considerable proportion of cases have been attended with very satisfactory results; some have conformed in every respect with the theory of action promulgated by Prof. Lister; but in a good number of instances, while the antiseptic action has uniformly been effective in utterly destroying putrefaction and fetor, yet in regard to its antipurulent properties such satisfactory results have not been obtained from the putty method. Suppuration has occurred in these cases to a considerable extent, though it is obviously difficult to say whether it would not have been more profuse in the same cases under another plan of treatment.

An observation having an important bearing upon the comparative value of the treatment has been made. When the treatment was first employed, the hygienic condition of the hospital was very good; and cases treated by the carbolic putty method, by simple water-dressing, and by no local application at all, did almost equally well. Many cases of chronic abscess, opened about the same time, and with the same precautions as to limited and valvular openings and the avoidance of rough handling or intermittent pressure, and with the same application of gentle, steady, and continued pressure by bandaging, got well equally rapidly, and with pretty much the same amount of consequent discharge. The same may also be said of the cases of compound fracture, in which the wound was limited and immediately covered up from the air by lint or collodion. Some time afterwards, in the autumnal months, the hospital air became vitiated; and notwithstanding the free use of carbolic acid in the waterclosets and wards, and in the water used for all purposes of ablution and disinfection, many of the cases treated with carbolic acid in exactly the same careful way resulted in free suppuration. One case of amputation of the thigh, followed by bedsore, treated throughout by the carbolic putty method, succumbed at last, after a prolonged illness, from pyæmic pneumonia of the lobular variety. Another case of operation for urethral fistula and phimosis, also attacked by the same disease, was more fortunate. The patient was placed in a separate ward, the floor of which was kept always sprinkled with Macdougal's carbolic powder, a thorough draught of air kept up by means of a fire and open windows, and the sulphite of magnesia administered internally, with wine, brandy, quinine, and good diet. The local treatment throughout was by carbolic oil and putty. The patient, though of a debilitated constitution, and producing well-marked and copious rusty-coloured and muco-purulent expectoration, made a good recovery. It admits, perhaps, of dispute what proportion of this result was due to the carbolic treatment; but most surgeons would incline to the belief that its local and atmospheric or respiratory application had the largest share in the beneficial agency. A case of lumbar, another of psoas abscess, and a third of chronic abscess of the thigh, occurring about this time, continued to exhibit tolerably profuse suppuration during the carbolic treatment. It was also observed that the neighbourhood of the sore was apt to become affected with a dark-red, dusky inflammation, sometimes ending in separation of the cuticle. This was especially apt to follow the use of the carbolic oil, even when diluted to a strength considerably below that used in accordance with the recommendation of Prof. Lister. It occurred also in cases where the carbolic putty was employed with every precaution to prevent its absolute contact with the skin, acting apparently by its vapour upon the surface. After a time, when granulations began to form in a sore, the effect of the carbolic acid or its vapour was decidedly to check, diminish, and even in some cases to destroy the filling-up process, which the removal of the carbolic cause at once and repeatedly altered for the better. In such cases, however, the suppuration was also always held in abeyance; but promptly returned when the carbolic dressings were discontinued. As an injection in gonorrhœa the aqueous solution of carbolic acid has uniformly been found too irritating to the urethra to be long continued, in most cases producing a marked increase in the pain after micturition, and in the inflammatory redness and swelling about the meatus urinarius.

Since the beginning of the year, Mr. Wood has used extensively a double carbolate salt, which was first (he says) manufactured at his suggestion.* This salt is the sulpho-carbolate of zinc. It is a definite crystallizable compound, composed of the sulphate of zinc and the carbolate of zinc. Its formula is, according to an analysis made by Professor Bloxam, of King's College: $C^{12} H^5 Zn O^2, 2 SO^3 + Aq$. Its most perfect crystalline form is right rhombic plates, of a flesh colour; and its more common form, as supplied by the maker, is in agglomerated amorphous masses of a pinkish-white colour. It is very soluble in water, and gives off no smell of carbolic acid whatever, either in the solid form or in solution. This salt, in aqueous solution of from three to six grains to the ounce, Mr. Wood has found of great service in all cases to which the use of carbolic acid is applicable as a dressing for wounds. It

* Dr. Sansom, we believe, first brought the sulpho-carbolates under public notice at the Obstetrical Society on Dec. 4th, 1867.

appears to combine all the astringent and detergent properties of the sulphate of zinc with the peculiar antiseptic and anti-purulent properties of carbolic acid, and possesses the additional advantage of giving off the carbolic acid, in measure and gradually, by a slow decomposition of the salt, under the chemical influence of the discharges. In cases of gonorrhœa, Mr. Wood uses it from the very beginning of the symptoms as a solution of three grains to the ounce, frequently and copiously applied by means of a syringe. As the case advances or proves refractory, the strength of the injection is increased to five grains. The effect upon the purulent nature of the discharge is immediate and marked. At once it diminishes the quantity, and renders more transparent and mucus-like the quality of the flow. In recent cases, treated from the first and properly attended to, it rarely fails to complete the cure in a fortnight or three weeks. In cases which have been neglected previously to the adoption of this treatment, and in chronic cases of gleet, the duration of the treatment has been longer; and in some, accompanied by constitutional cachexia, or interrupted by inflammatory action in the neck of the bladder, it has, while employed, kept in check the discharge, but failed to suppress it entirely. In some the discharge has returned directly upon the remission of the injection, and upon its resumption has again nearly entirely ceased. Orchitis or bladder symptoms have not occurred, in the cases in which it has been employed, in as great a proportion as in those treated by internal remedies or left without active treatment. As an application to herpetic and suppurating soft chancre it is equally effective as an antipurulent agent, and, combined with the administration of iodide of potassium, a speedy healing of the sore has followed. In these cases, and also in those of hard chancre, Mr. Wood has employed the *strong carbolic acid* as an escharotic in the early stages, and approves highly of the results obtained. He has also used the strong undiluted acid with the same purpose as a subcutaneous injection in nævi materni, with unvarying success. Its action in such cases is prompt and efficacious in destroying all the tissues with which it is brought into immediate contact. It is at the same time very manageable, and leaves a dry eschar *without any suppuration*, and which, when it falls off like a scab, leaves a cicatrised surface beneath. In efficacy, manageability, cleanliness, and rapidity of results, it is, in these cases, infinitely superior to any other escharotic that has been tried. Mr. Wood has found it efficacious also as an escharotic injection in cancerous nodules of the skin and subcutaneous structures, causing them to shrivel and dry up.

The solution of the sulpho-carbolate of zinc has been extensively used as a dressing to wounds and sores in the practice of Mr. Wood. It removes all odour as promptly as the carbolic lotion, while it is less irritating, more detergent, has no smell, and as effectively prevents all fungoid or sporular formations in moist dressings during hot weather as the carbolic acid itself.

GUY'S HOSPITAL.

TWO CASES OF INJURY TO THE SPINE.

(Under the care of Mr. BIRKETT.)

WE remember seeing a case strongly resembling the first of the two following, which was under Dr. Beale's care in King's College Hospital two or three years ago. A bale of cotton had fallen from a height upon the back of the patient's head and neck. The injury caused paralysis of all four limbs at a remote period, and great narrowing of the cervical canal was found after death.

CASE 1. *Partial motor paralysis following a contusion of the neck twenty months before death.*—Henry R——, aged seventeen, was admitted August 19th, 1868. He had always been delicate, and small for his age. Twenty months ago, while stooping with his head directed towards the back of a van, which he was opening, the tail-board fell on the back of his head two inches above the occipital protuberance, rendering him insensible for a minute. He suffered pain in his head, which soon, however, passed off. Just before last Christmas two small abscesses formed in each posterior triangle, which burst, and were some time healing. At Christmas he suffered great pain and stiffness around his neck, and his head seemed twisted towards the left side. Two months ago both arms became suddenly paralysed while asleep. He had previously experienced noises in his head, and thought that he had the nightmare; but upon his brother awaking him he could not move. For one month he had the sensation of "pins and needles" in his arms, and not in his legs. Has occasionally felt it since. His legs have gradually become paralysed.

On admission, the patient was placed on his back. Urine and fæces passed naturally. He breathed both with diaphragm and intercostal muscles. General sensation was imperfect, but he could feel in some parts better than others; sensation not very perfect over sternum. He had no power of motion over his arms, but could move his legs a little.

Patient gradually sank, and died five days after admission, without the condition above described being altered.

The following account of the necropsy is from notes taken by Dr. MOXON. On cutting down from the back upon the cervical spines, one or two rough, bare spicules of bone were felt. All the cervical vertebræ were excised. They were more strongly united together than usual, and bent, with the concavity directed towards the left side, the anterior concavity being more strongly marked in the upper two or three vertebræ, so that the spine of the axis (odontoid process) projected more strongly backward than usual. It was not possible to ascertain whether the transverse ligament had been destroyed or not, for in taking out the vertebræ the atlas had been cut away from the axis and left behind. On removing the arches, a quantity of tissue was cut into, which, microscopically examined, appeared to be inflammatory material, undergoing in the centre the so-called "strumous deposit"—in fact, degenerating in the centre. The same matter was growing from the dura mater, forming a mass which had reduced the capacity of the canal of the cord fully two-thirds, so that the space just below the odontoid process, through which the cord passed, was narrowed to one-third the natural size, and the cord correspondingly pressed upon. Lungs healthy. No trace of tubercular disease.

In the small omentum were a mass of glands, much enlarged, and filled with "strumous deposit." Nearly all the glands, from those two inches in diameter down to those the size of a bean, were degenerated in the centre, and all were undergoing fatty and even calcareous degeneration. Stomach healthy, and bile passed freely into the duodenum. The surface of the liver was covered with white spots, from the size of a pea to a pin's point. They were firm on section, and looked like grey hepatisation in a pyæmic lung.

CASE 2. *Injury to spinal cord; concussion.* — A healthy-looking boy, aged thirteen, was admitted into the accident ward May 30th, 1868, at 10.45 P.M. His father gave the following history. At 1.30 P.M., while leaning over a plank, the boy was kicked from behind in the lower part of dorsal region of spine, so that his abdomen was compressed between the foot and the square board, causing him to faint. He soon after walked a short distance, and felt a pins-and-needles sensation in his left leg and foot; he also had a great desire to micturate, which he did without difficulty; no blood came with the urine. He suffered then great pain in his back, and felt a grating sensation as if a joint were loose. In about an hour's time his legs became weak, and he was soon unable to stand; then his feet and ankles began suddenly to swell, so much so that, though his feet were small, his father's socks fitted him tightly. At 4 P.M. he vomited some yellowish-green fluid, and first complained of pain over the stomach. He continued to vomit for three-quarters of an hour, and was then put to bed. The pain over the stomach increased, and he wandered frequently. Soon he became totally unable to stand, and hardly able to sit up.

State on admission. — Is unable to stand, and feels uneasy unless lying on his back; is placed on a spring bed. He complains of pain in the abdomen around and below the umbilicus, and a pain in the upper lumbar region; pressure on two of these vertebræ causing pain, which extends round in front towards the navel. The surface of the abdomen is tender, and he has difficulty in flexing the legs, and this he can only do partially—the left less than the right. Both feet and ankles are swollen; but do not pit on pressure. Complains also of stiffness and slight difficulty in swallowing, and pain in the cervical region. His face seems contorted when he swallows his saliva. His throat is healthy; sight dim; has lately voided urine and passed fæces.

May 31st. — 12.15 A.M.: His expression is anxious and troubled; increased difficulty in swallowing; stiffness in the cervical region. The pain and stiffness in the face follow the distribution of the auriculo-temporal nerve. The difficulty in swallowing is situated chiefly below the thyroid cartilage. His face while swallowing is distorted, chiefly by the action of the orbicularis oris and the orbiculares palpebrarum. Complains of pain in the stomach, extending down both legs, which jump very much.—11 A.M.: The child seems anxious and worried.

His legs jumped very much in the night, and he wandered. He is very restless; skin very hot; tongue dry in centre, brown at the edges; pulse small and quick. Complains still of difficulty in swallowing and stiffness in the jaws, and of pain in the lumbar region, which sometimes shoots up the spine, where he immediately feels a stiffness, and his neck is drawn back. Abdominal tenderness continues; voids urine freely. Ordered three grains of Dover's powder every six hours; and to have milk, eggs, and beef-tea.—9.15 P.M.: Very restless; wandering; skin very hot; pain in the abdomen; jumping of the legs, and stiffness in the back part of the neck.

June 1st.—Can swallow without difficulty. Still lies on his ack. His head is drawn sometimes back, sometimes to one side, and he cannot straighten it without assistance. To take twenty minims of tincture of hyoscyamus and one ounce of solution of acetate of ammonia three times a day.

2nd.—Is very feverish, and complains of pain in the chest. Incipient pneumonia.

4th.—Is suffering pain in all his joints; perspires greatly; cannot move his arms for pain. He was seen by the physician, who considered him to be suffering from acute rheumatism. Stiffness of the neck diminished. Pulse 100, small; urine high-coloured.

6th.—Skin hot; pulse 100; tongue less furred. Suffers more pain in the legs, which jump more. The pain while swallowing has passed away.

8th.—Less pain.

9th.—Much better; free from pain; pulse 100, stronger.

11th.—Much improved; is up and dressed; feels giddy.

14th.—Discharged well.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

MONDAY, DEC. 7TH, 1868.

DR. B. W. RICHARDSON, F.R.S., PRESIDENT, IN THE CHAIR.

ON GALL STONES.

Mr. PETER MARSHALL exhibited a patient, a man aged forty-six, who had had abdominal pain, with occasional jaundice, since the age of seventeen. Fourteen years ago a large abscess occurred in the right lumbar region, which discharged first blood, afterwards thin watery fluid. After nine years the abscess healed, leaving two cicatrices; a short time subsequently three small abscesses were observed in the groin, from the lowermost of which was obtained a biliary calculus, weighing twenty-four grains. The case is probably unique.

Dr. THUDICHUM considered that in this case the cystic duct had been obliterated long before the abscess formed; dropsy of the gall-bladder followed. The man now possessed no gall-bladder.

Mr. GAY considered that the extraordinary course taken by the gall-stone was due to some obstruction at the ordinary points of exit. He related an interesting case occurring in the practice of the late Dr. Hodgkin, wherein exit took place in the right hypogastrium. He thought gall-stones in some cases might be removed by surgical means. Gall-stones, in his opinion, were not always formed in the gall-bladder.

Mr. HUTCHINSON exhibited two large gall-stones passed by the bowels. The pain lasted about four days in each case.

Mr. STREETER detailed a case wherein the symptoms were those of intestinal obstruction. At the post-mortem examination a gall-stone of great size was found in the ileum, and a large fistulous opening was seen between the pyloric end of the stomach and the duodenum, the proper pyloric outlet being closed by adhesion. The patient had been the victim of tight-lacing.

Mr. HAINWORTH showed (1) a concretion which formed a perfect cast of an enlarged gall-bladder and cystic duct; (2) a gall-stone of cholesterine, internally in concentric laminæ, externally in concentric crystals; (3) a series of five faceted concretions, with débris, obtained from one patient.

Dr. LEARED read a paper "On Gall-stone." There are four situations in which gall-stones give rise to morbid symptoms: (1) in the common duct, in which case they cause pain and, if their passage is protracted, jaundice; (2) in the cystic duct, in which case jaundice is absent; (3) in the hepatic duct—jaundice occurs if there is protraction; (4) in the ducts within the liver, when jaundice may or may not occur, but there is a condition resembling intermittent fever. Pain is greatly modified by individual susceptibilities. The great seat of pain is the epigastrium. The author discussed the differential diagnosis of the extrusion of biliary and of urinary concretions, as well as of gastralgia and hysteric pain; and he detailed some interesting cases, particularly one in which, after severe pain, there was sudden relief, and the right side of the abdomen was found to be dull on percussion; peritonitis set in; and at the autopsy the gall-bladder was found ruptured. Dr. Leared objected to the evidence which had proclaimed that mercury is not a cholagogue.

Dr. THOROWGOOD followed with a paper on the same subject. He narrated the case of a female who, after an instrumental labour, followed by convulsions and a miscarriage some months subsequently, became subject to epigastric pain, accompanied by shivering. The author detected a small tumour in the region of the gall-bladder. Various other diagnoses had been made, but he confirmed his own view by an examination after the lapse of time, and this was subsequently established by the passage of masses of inspissated bile. In a second case, a patient died after peritonitis for a month; there was found a rough oval gall-stone in the abdomen, the gall-bladder being obliterated. He believed in the cholagogue virtues of mercury. The treatment he advocated was belladonna as a sedative, perchloride of iron, and chloride of ammonium.

Dr. THUDICHUM dwelt on the importance of the pre-existing signs of gall-stone. There was first constipation, then decomposition of bile within the channels, then shedding of epithelium, which formed the nuclei of concretions. He described the chemistry of gall-stones, and requested that any specimens might be forwarded to him at the laboratory of St. Thomas's Hospital, to aid the chemical history, which was now approaching completeness. It was clearly ascertained that mercury acts, *not* as a cholagogue, but chiefly as a purgative. No facts show that it increases bile; the green dejecta which give rise to this notion owe their appearance to the green sulphide of mercury produced.

Dr. ROUTH narrated a case in which the inhalation of chloroform was very successful, and in which without doubt the gall-stone was extruded from the duct during the anæsthetic state.

Dr. W. H. DAY mentioned three cases confirming Dr. Leared's view, that pain in these cases is referred to the epigastrium.

Dr. SANSOM adduced a case of periodic abdominal pain with jaundice, the results of impaction of inspissated bile in the ducts, in which, after an almost mortal injury from railway accident, the patient recovered, and now no longer suffered the hepatic symptoms. Can violent mental shocks arrest the habit of formation of these concretions? He suggested that the subject of gall-stones, and their effects, should be referred to a sub-committee of the Society.

The PRESIDENT mentioned a case in which he considered that a gall-stone passed into the stomach. He called attention to the peculiar cerebral symptoms existing in those suffering from gall-stones. There is not only an anxiety bordering on despair, but sometimes a direct congestion. He thought that mental strain could be a producing cause of the disease. He narrated a case in which the application of extreme cold to the abdomen entirely relieved the pain of the gall-stone, and facilitated its passage.

Dr. LEARED and Dr. THOROWGOOD replied.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOV. 27TH, 1868.

SIR THOMAS WATSON, PRESIDENT, IN THE CHAIR.

THE following gentlemen were elected members of the Society:—Dr. Day, Dr. Rice, Dr. Tatham, Dr. Lawson, Dr. Bright.

Mr. BRUCE communicated a case illustrating the advantages derived from Tracheotomy as a Remedy for Acute Diseases of the Larynx.

Dr. MARCET thought the apnœa necessitating tracheotomy in the present case was due partly to the swollen condition of the larynx, and partly to spasmodic closure of the glottis; the success of the operation resulting not only from the fact that the passage of air through the inflamed part was prevented, but also to the circumstance that the free admission of air into the lungs relieved the disturbed balance between the circulation and respiration which might have been the main cause of the laryngeal spasm. He had witnessed a case similar

to Mr. Bruce's in many respects, and also cured by the same means.

After some remarks from Mr. HOLMES respecting the different causes of dyspnœa in these affections,

Dr. WILLIAMS dwelt upon the good effects produced by the use of antispasmodic remedies, and alluded to the beneficial effects of chloroform vapour.

Mr. THOMAS SMITH thought it scarcely necessary to regard the lung congestion as the cause of the spasms of the larynx, and alluded to the frequency with which the admission of cold air through the trachea was followed by pneumonia.

Mr. KESTEVEN mentioned his experience as to the great danger from the supervention of spasm in these cases.

Mr. BRUCE referred to some instances in which the use of chloroform had greatly added to the severity of the symptoms.

The PRESIDENT drew attention to an instructive case in which Sir Charles Bell was about to perform tracheotomy, when he observed the scar of a previous operation over the front of the trachea. This led to further inquiries, and the postponement of the operation. The patient, a young woman, presently recovered from what proved to have been a purely hysterical affection. The President made some further remarks enforcing the importance of distinguishing this class of spasmodic affections of the larynx.

Dr. POWELL communicated two cases of chronic disease of the lungs, presenting the characters of Fibroid Phthisis. His remarks principally related to treatment. He enforced particularly the importance of ensuring the complete resolution of acute pneumonia or pleurisy, before allowing the patient to resume his usual mode of life, and recommended iodide of potassium and alkalies as the most important remedies. He had also derived great advantage from iodine inunction.

The PRESIDENT then called upon Dr. Pollock, who, in conjunction with Dr. Clark, had been appointed at a former meeting to report on Dr. Powell's cases. Dr. Clark being absent,

Dr. POLLOCK said, as the report on the cases was in the hands of his coadjutor, he much regretted that it could not be read to the Society, the more so as, although Dr. Clark agreed with him in every particular as regards the facts, he was not entirely at one with him as to their significance. He regarded both the cases under discussion as having originated in acute pneumonia, or pleuro-pneumonia. One appeared to him still to come under this heading, while in the other the state of the primary condition had been followed by tuberculosis of the opposite lung. In the course of his observations, Dr. Pollock adverted to the charge of too great comprehensiveness made by Dr. Clark against those who use the word phthisis in the ordinary sense; and, in return, submitted that Dr. Clark himself had brought together under one term, that of "fibroid phthisis," a number of cases, some of which were certainly not phthisis, while others did not possess the anatomical characters which he had himself described as those of "fibroid" change.

Dr. C. J. B. WILLIAMS adverted to cases in which pulmonary contraction arose from repeated attacks of bronchitis, independently of pneumonia or pleurisy. He agreed with Dr. Pollock in regarding such cases of rare occurrence. He considered that, under the circumstances, fibroid change was a curative process, in which respect he differed entirely from Dr. Clark.

Dr. GREENHOW drew the attention of the Society to the form of contracted lung which is met with in persons with chronic bronchitis resulting from the inhalation of pulverulent substances.

Reviews and Notices of Books.

On the Anatomy of the Vertebrates. Vol. III.: Mammals. By RICHARD OWEN, F.R.S., Superintendent of the Natural History Departments of the British Museum. London: Longman and Co. 1868.

IN this the last and concluding volume of Professor Owen's great work on Comparative Anatomy, the several systems of organs of the Mammalian organism are described in thirteen chapters, which are thus entitled:—1. The Muscular System of Mammalia; 2. The Nervous System; 3. The Dental System; 4. The Alimentary Canal and Appendages; 5. The Absorbent System; 6. The Circulating System; 7. The Respiratory System; 8. The Urinary System; 9. The Tegumentary System, and Appendages; 10. Peculiar Glands of Mammalia; 11. Generative Organs; 12. Generative Products and Development; 13. Mammary and Marsupial Organs; and to this there is appended a fourteenth and last chapter, headed General Conclusions.

We have not space to record the many excellences of the work, which contains in comparatively short compass an immense store of important facts, some of which have long been known to the scientific naturalist, others that are here for the first time published, but all of which represent the labour of years, and are arranged in an admirably lucid and intelligible manner.

In reference to the muscular system, only a few select examples are given, such as the characters it presents in Monotremata and Marsupials, in the hedgehog, ant-eater, horse, cow, and some of the Quadrumana.

The chapter on Teeth, to which Professor Owen has paid so much attention, contains, it is hardly necessary to say, an extremely full account of these organs amongst the Mammalia, which are divided into the Monophyodonts, or those that generate as a rule only one set of teeth, as the monotremes, cetacea, and edentata; and the Diphyodonts, that generate two sets of teeth. It closes with an interesting summary of their homologies. In a note to this part we find the following remarks, which bear on recent discussions both at home and abroad:—"In honest argument as to man's place in nature, his zoological characters are to be compared with those of the brute that comes nearest to him; the differences so established should be contrasted with those between such brute (the gorilla, e.g.), and the next step in the scale (the chimpanzee, e.g.), and so on step by step through the order which zoology forms of the series of species so gradually differentiated. No doubt a gorilla differs more in its dentition from a lemur, and still more from a mole or a mouse, than it differs from man. Take another character, the hinder or lower limbs, e.g. Contrast the negro in this respect with the gorilla, and, next, that ape with any other quadrumanal. Much as the aye-aye differs as a whole from the gorilla, it does not resemble it more in such quadrumanal structure than the gorilla resembles man. Between the two extremes of the four-handed series, there is greater organic conformity in the main ordinal character than exists between the highest ape and the lowest man. Or take the cerebral test. Man's place in the natural system is to be judged, not by the degree of difference between the brain of an ape and that of a mammal one hundred links removed, but by the degree of difference between the human brain and that of the brute which comes nearest to him, as contrasted with the degree of difference between the brains of the gorilla and chimpanzee, or between those of any other two conterminous species constituting links in the quadrumanous chain. The differences between a lemur and an orang-outang may be greater than between the latter and man; but truth compels the remark that the lemur and ape are separated by numerous gradational species, whilst between the ape and man there is no known or connecting link. Logicians have long ago exposed and branded the sophism which has of late been propounded to persuade men that they are of the order of apes."

The chapter on the Nervous System is perhaps the one in the book to which most attention has been devoted. It contains a remarkably full description of the fissures and convolutions of all the principal forms of brain amongst the mammalia, illustrated by nearly one hundred woodcuts, many of which are original. Prof. Owen, in this chapter, enters into a brief but very important digression, in which he avows his adherence to his original views in regard to the segmentation and vertebral character of the cranium, and to the division adopted in his Rede's Lecture of mammals into the Lyen-, Lissen-, Gyren-, and Archen-cephala; and makes frequent

reference to the subjects of the posterior cornua and hippocampi, late the basis of so much acrimonious dispute.

The description of the organs of digestion and the connected glands, of the vascular system and of development, contains, comparatively speaking, little that is new, though each division is orderly and fully considered.

The last chapter—General Conclusions—all will be interested in perusing. It commences with a brief account of the biological questions in 1830, when the author had finished his biological studies at the Jardin des Plantes, and such as were held by Cuvier, Geoffroy St. Hilaire, and others. He shows how his own mind was gradually induced to abandon Cuvier's teleological views, and adopt the law of special homologies, establishing for the vertebral series, as Goethe had already done in the case of the plant, an ideal type, by comparison with which the variations that occur in different instances may be rendered intelligible. From the demonstration of this principle of "unity in variety," which he then satisfied himself was associated with and dominated by that of "adaptation of purpose," the step was plain—to him inevitable—to the conception of "the operation of a secondary cause of the entire series of species, whether of plants or vertebrate or other groups of organisms; such cause being the servant of predetermining intelligent Will." In a note, Prof. Owen adds: "Such 'ideal type' must not be confounded with the so-called 'types' supposed to be exemplified by certain living species. Arguments against the latter vague and ill-defined ideas are of no weight against the former, and indicate a certain obtuseness of apprehension in the objector." Most interesting sections follow—on the "Succession of Species, broken or linked?" on "Extinction, cataclysmal or regulated," in which he vigorously defends himself from being in any fashion a promulgator of or believer in the Darwinian doctrines and views; on "Heterogeny" and "Pangenesis," and several other points of present interest, on each of which the author expresses himself with no uncertain sound.

We have said enough, we trust, to induce many of our readers to purchase this great work for themselves; and if time and industry will allow, we would recommend them to master its contents. To every naturalist it will prove indispensable, and the vast accumulation of facts it contains will render it a useful book even to those whose occupations are less directly connected with anatomy and physiology.

Skin Diseases; their Description, Pathology, Diagnosis, and Treatment. By TILBURY FOX, M.D. Lond., Physician to the Skin Department of Charing-cross Hospital. With Illustrations and copious Formulæ. Royal 32mo. London: Renshaw.

THERE are a good many reasons why a knowledge of skin diseases forms a rather important part of the medical man's education; and by this knowledge we do not mean anything so special and extraordinary that only the few will be at the pains to obtain it. Such an acquaintance with the different kinds of skin disease as shall qualify a man to diagnose all the more ordinary forms with ease and accuracy we hold to be essential, and this is unquestionably within the reach of most of us. To begin with, many eruptions are simply the external manifestations of general diseases, specific in their nature and contagious in their character; and these manifestations, from being objective signs, become most valuable diagnostic marks. The different exanthemata express their presence by markings on the skin, each after its own pattern.

But it is time to say something of Dr. Tilbury Fox's manual. He tells us in the preface that his object in writing it was to supply for general use a book containing a concise and practical account of diseases of the skin; and by this he means one which should instruct students in the principles of dermatology as a science, while it affords a guide adapted to meet the requirements of the practitioner, who wants to have the leading and distinguishing marks of each affection put before him plainly and tersely, with those plans of treatment which, in the experience of others, have been found to be the most reliable. We are bound to say that Dr. Tilbury Fox has succeeded in his design.

The manual is a small and closely-printed volume, containing a vast amount of matter of all kinds, much of which has never before been brought together in one volume. With a view to make his work useful to those who enter the public services, and may therefore practise anywhere in the world, he has included the skin diseases peculiar to tropical and other climates. The book contains, besides, a capital formulary and glossarial index. His classification is founded on the new nomenclature of the London College of Physicians; and there is much novelty in the arrangement and designations of local inflammations. We do not profess to be able to do more than take up a few points. To begin with eczema. We find the author showing a conservative spirit, preferring the old pathology to the new. He sides with Willan and Bateman in opposition to Hebra, his own doctrines being a development of those advanced by the former authorities. We suspect he may yet see reason to modify some of his views about parasitic diseases; and there are several things in the book on which we should venture to differ from him, if the difference did not involve too much space to do our own views justice. We ought, however, to add, that Dr. Tilbury Fox is fair: he always gives the views of other authors when stating his own; and points out wherein he differs from them. The characters of contagious impetigo—a distinct vesiculo-pustular type of disease which is peculiarly apt to spread among the children of the lower orders—are well given. Dr. Fox points out that this is an inoculable, and therefore a contagious, disease; in which he is corroborated by M'Call Anderson, Wilson, and others. At page 332 there is a description of a new kind of disease, under the name of "Tinea kerion," which appears to be an exaggerated and complicated form of Tinea tonsurans. His view of Lichen tropicus is ingenious and novel. He thinks the perspiratory follicles are the chief seat of the disease. The great demand made upon these glands deranges their circulation; so much so, that they are unable to excrete the sweat. The result is that the surface is not properly cooled by evaporation, the sweat products are retained, and consequently the nervous plexus of the skin becomes acutely disordered; hence the burning, pricking sensation.

By the way, we do not know why the publisher adopted a red binding for this book. Being a Manual of Skin Diseases, possibly he thought a scarlatinal coat appropriate. It looks so like the real thing that we felt half afraid to let our children approach it.

THE CHOLERA EPIDEMIC OF 1867 IN NORTHERN INDIA.

IN our abstract last week of the "Report of the Sanitary Commissioner with the Government of India for 1867," we pointed out the high degree of probability which existed that the origin of the outbreak of cholera among the pilgrims at the great Hurdwar fair was intimately associated with the pollution of the water by fæcal products—that it was, in fact, an example of water-poisoning on a wholesale scale. We also said there was a vast body of facts which left no room for doubt that the subsequent extension of the disease was to be traced to the dispersion of the pilgrims. We now propose to show on what evidence the latter statement stands.

It would appear that for the nine years preceding 1867 cholera had been altogether unknown at these annual gatherings, and yet no sanitary arrangements whatever had been made, so that the camp must have been most offensive. In 1867 the disease manifested itself after the great bathing ceremony. Terror-stricken, ill-clad and ill-fed, the pilgrims pur-

sued their homeward journey, which must have resembled the flight of a distressed army, save that the conquering enemy was an unseen power already in their very midst.

The main routes pursued by the pilgrims were three—one south-east, through Rohilcund and Oude; a second south-west, through the Seharunpore, Mozuffernuggur, and Meerut districts; and a third north-west, through Seharunpore to the Punjab. Information was obtained of the general distribution of cholera by a circular letter addressed to the civil surgeons throughout Upper India. Those who desire to trace the geographical progress of the disease, taking Hurdwar as a centre, must do so with a map, without the aid of which a description would be very difficult. The compiler of the Report does not, however, follow the natural geographical order, although he indicates it. It would be impossible to go through all the mass of details within a reasonable space, and we must content ourselves with a few examples.

The station of Moradabad is eighty-six miles distant from Hurdwar. The first case occurred there on the 15th of April; and up to the middle of May, when cholera disappeared, there had been 1247 attacks, but only 178 deaths. The statement of the district officer, corroborating the opinion of the civil surgeons, is: "Under no circumstances could more satisfactory proof have been obtained of the communicability of the disease. Previous to the arrival of the pilgrims not one case had occurred; simultaneously with their arrival it attacked residents of the towns with whom they came in contact, and assumed for a time an epidemic form: nor was this confined to one stream of pilgrims—wherever they went the result was the same."

From the Bareilly district we have evidence of essentially the same character. The total number of cases in the Delhi district was 2590, with 1436 deaths. Dr. Adam Taylor had not the remotest doubt that it was imported solely by pilgrims. "The cholera chose as its seat the country through which the pilgrims passed. A map of the district has been prepared by the Deputy Commissioner's orders in which the affected villages are marked. These are all along the lines of the march of pilgrims returning by the ghâts, and a triangular space which had the river Jumna for its base and these lines for its two sides escaped almost completely. The police and railway officials whose duties carried them among the masses of returning pilgrims suffered much more in proportion than the rest of the community." Among the prisoners, on the other hand, there was complete immunity from the disease. The Umballa gaols also, with a population of 487 prisoners, escaped altogether, although in close proximity to the city where cholera prevailed. The immunity of these institutions was generally, however, only relative, and not absolute.

One of the most curious and circumstantial accounts is furnished by Dr. De Renzy at Mooltan. Up to the 3rd May the cases were confined to the pilgrims. On the 5th, a woman, the wife of a resident in the city, died. On the 10th, cases began to occur in the Ghogera Mohulla, and four of the sufferers had been at the house of the woman above mentioned. Ghogera Mohulla must be, according to the description afforded, a peculiarly nasty place; but, abominably insanitary as it was and had been for years, cholera had not been heard of for twenty-four years when it broke out on the 10th May in an epidemic form. The soil of the streets was saturated with organic matter from the excremental accumulation of ages, presenting a black colour and emitting a foul smell when stirred. "The people were so accustomed to use foul water, that they have learned to test whether it is dangerously impure or not by dipping a rupee into the wells. If the sulphuretted hydrogen in the water tarnishes the silver much, the well is pronounced dangerous and the water abstained from. Such was the sanitary condition of the Ghogera Mohulla, and it was an average specimen of the city generally, when cholera appeared in an epidemic form on the evening of the 10th May, *and such or worse it had remained for the twenty-four preceding years, during which cholera was unheard of.*"

We are assured that the facts connected with the dispersion of the pilgrims have been collected with great care, and that the evidence has been considered with the sole object of endeavouring to ascertain the truth, and not with the view of supporting any preconceived theory. That cholera went with the pilgrims from Hurdwar, and accompanied them to a greater or less distance in every direction, is stated to be a fact which admits of no dispute. This distance varied from fifty to three hundred miles in almost every point of the compass. Below Allyghur on the south, and Shajehanpore on the south-east, no connexion could be traced between the appearance of cholera and the return of the pilgrims from Hurdwar. The history of the first case in all those districts which lie to the north and north-west is epitomised in the Report in a tabular statement and accompanying chart. Excepting Goorgaon, no cholera appeared in any of the fifty-one stations embraced in the table until ample time had elapsed for the pilgrims to reappear, or for others to enter them from infected places. There was no simultaneous outbreak of the disease over a large area. In the 51 places named, no cholera existed until the pilgrims had returned, and even in Goorgaon the epidemic prevalence of the disease dates from their return. In 35 out of the 51 districts, when every doubtful case has been deducted, the first persons attacked were pilgrims. Thirty-two medical officers ascribe and trace the outbreaks in their districts to the arrival of pilgrims; and in no case has any positive evidence been adduced to prove the contrary, or to show such a cause to be improbable. It cannot, says the Report, be regarded as a coincidence that in 35 districts of Upper India, covering an area much larger than that of Great Britain, the epidemic should have gradually appeared in one place after another immediately after the return of a body of persons stricken with the disease. It is to be lamented, we think, that the rules drawn up by the Sanitary Commission with reference to cholera in gaols were not carried out. Had some really efficient system of quarantine been applied to these institutions, we might surely expect that a flood of light would have been thrown upon the mode of propagation of the disease. The experiment would then have been of a strictly crucial character, and have served to correct or establish the knowledge we already possess.

A few words in conclusion. We are prepared to accept the statements recorded in this Report, and to follow them out to their logical conclusion, although we recognise the impracticability of applying that rigorous and extended system of quarantine which the case would require. But we do not on that account shut our eyes to the fact that there must be several factors at work—a plurality of causes acting in combination—to occasion a widespread outbreak of cholera. Dr. Bryden's remarkable letter in the volume before us shows that he played the part of prophet on this occasion, and that he has been enabled to deduce something like a correct empirical law, from statistical research, as to the prevalence of epidemic cholera. What that general law, or wave of diffused influence may be, we know not. Dr. Lawson will see in the more rapid and extensive north-westerly progress of the disease, as compared with that in the opposite direction, an evidence in favour of his theory. There may be some connexion between the recurrence of epidemic disease and terrestrial magnetism, or there may be, and doubtless is, a something which we ignorantly term "an epidemic constitution of the season." No believer in contagion, however strong may be his convictions, would deny the operation of several factors; but as a matter of common sense and common logic, we should unquestionably first try to prove the existence or non-existence causes which are within our control, as it is quite clear that by no amount of thought can we influence terrestrial magnetism, or turn the seasons from their course. The relation of season and

soil, of the movement of the ground water and water-supply; the peculiarities of localities where cholera is endemic as compared with others in which it has not appeared; the reason why it is now sporadic, or that a single case should prove the precursor of a long epidemic storm; why an epidemic ceases at all, and what the conditions are which cause it to be short and limited or long and extensive; what power we possess of artificially communicating cholera to the lower animals, the agents by which we can do so, and the nature of the contagium of which those agents are the vehicles,—on all these subjects we require information which shall consist of facts, and not of opinions or hypotheses.

A MILITARY CONTRAST.

DOWN a narrow sloping entry, in a court-yard closely surrounded with houses of the worst description, in close proximity to nests of privies and an exposed manure heap, where storm-rain washing down the mud collects in pools of water often two feet deep, there is a lean-to hovel built against the gable of a house. In front it is some six feet high. In the centre there is a door patched with unpainted boards and tumbling fast to pieces; on either side a low window, in one of which some panes of glass are broken and the shutter closed to keep out wind and rain. We stoop to enter. The floor is much below the level of the ground outside; the boards show evidence of rottenness and damp. The gently sloping roof, open to the tiles, is patched and plastered in vain endeavour to keep out rain. The chimney breast takes up the centre, and gives proof of smoke. In each corner is a wretched bedstead; on one of which there is some scanty bedding, and on the other a ragged bedtick stuffed with straw. Between the fireplace and the door is a small round table and some wooden chairs, and in the corner is hung up a knapsack, which indicates that the owner is a gunner of her Majesty's Royal Artillery, Battery letter X. The man has served his country long, and has had leave to marry. He has a wife and three children. One of the latter, a ragged urchin, is keeping house, as he has taken cold and cannot go to school. There are a few black pots stowed beneath the windows, and some plates and tea-things on the table; but, beyond a crust of bread, there is no evidence of food. For this wretched pigsty the rent is 2*s.* 3*d.* per week, and 1*d.* each (or 5*d.* more) is also charged for the bedsteads, chairs, and table, which the unfortunate tenant is unable to purchase for himself. No coal, no light, no lodging money, no privileges are his. He divides with his wife and children his ration and his pay. His food is scanty, and his children suffer all the consequences of poverty, and grow up sickly and diseased. Such is the gunner's house.

Turn we to the contrast. In a spacious, level, and well-drained plot of ground, coated with fresh red gravel, without a straggling straw or speck of dirt, are a series of scattered buildings, of whitest brick and cleanest woodwork, with windows for light and cupolas for ventilation. We enter through a noble doorway, and find ourselves in a spacious and lofty stable. The floor is dry, and beautifully clean. It is paved with cubes of granite laid in impervious cement. The air is pure and balmy, and the sleek-skinned occupants of the roomy stalls show how carefully they are protected from the cold north wind. The animals have a separate granary in which to preserve their food, a separate harness-room in which their accoutrements are stowed away, and a separate infirmary in which their sick are placed. Lest their bedding should be made unwholesome, there are outside litter-sheds in which it is exposed to ventilation, and yet preserved from damp. The manure pits are at a convenient distance, and emptied daily. Stand-pipes of the purest water are close at hand, and charged for continual use. Here is abundance of food and constant care. Here an officer comes round many times a day, and reports whether all be well.

The gunner and the horses are equally the servants of the State. Both cost money to obtain, and more to train. Both are expensive animals, difficult to replace. Both are in charge of a public administration amenable to Parliament. We believe the stables of Woolwich Garrison may be at this moment under the inspection of a prince. We would respectfully request a visit to the gunner's hovel, even if but once a year. The housing of our married soldiers is a national disgrace, and every shilling spent on stables is a shame until humanity is housed and cared for.

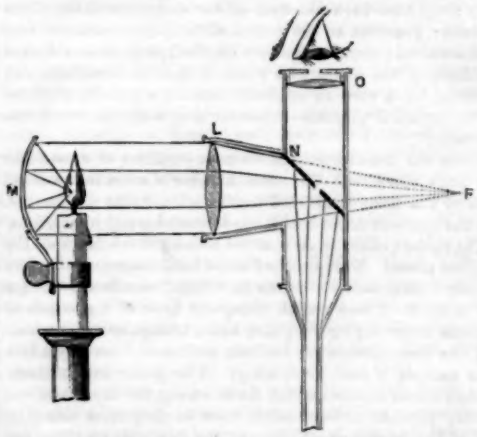
New Inventions

IN AID OF THE

PRACTICE OF MEDICINE AND SURGERY.

AN UNCOMPLICATED URETHROSCOPE.

DR. LANGLEBERT submitted, on Sept. 22nd, 1868, to the Academy of Medicine of Paris, a very simple urethroscope, of which the accompanying woodcut will at once give an idea.



Either common daylight, a lamp, or a candle may be used, the latter being held at a distance from the instrument. The lens (L) is not, as in other instruments, placed at the end of a tube, but is fixed at the base of a hollow cone, internally silvered, and of such a diameter that its supposed apex would be in F, the principal focus of the lens. This cone completely envelops the rays of light sent by the mirror (M) and refracted by the lens (L). At a certain distance from this lens an elliptical metallic mirror (N) is placed; it is pierced in the centre with a small hole, and presents an angle of forty-five degrees. This mirror, slightly concave, receives the whole of the rays refracted by the lens, and reflects them towards the end of the catheter, which is seen by the surgeon on looking through the lens (O). This is a very cheap and convenient instrument; the maker is M. Mathieu, of Paris.

A PATENT sanitary closet has been invented by Mr. Thomas Beggs. It presents some important improvements which make it specially useful in hospitals, private houses, and confined situations. The lid is air-tight, and when closed a continuous current of air passes through the pan and a box of charcoal. All noxious emanations are thus deodorised, and carried off, there being no possibility of escape into the apartment in which the seat is placed. This current of air is cut off, when the lid is raised, by a self-acting valve, so as to obviate a draught. The syphon arrangements of the plan are extremely simple, and the supply of water is provided by a supplementary cistern to prevent unnecessary waste.

THE LANCET.

LONDON: SATURDAY, DECEMBER 12, 1868.

THERE is a portion of medical education which would seem to be imperfectly provided for in the existing methods of instruction at our schools. Upon entering practice the medical man finds himself called upon to write, at a moment's notice, prescriptions which will not only be likely to benefit his patients, but which have often to bear the scrutiny of persons well qualified to judge of the language in which they are couched, and disposed to compare them with others in their possession. With certain honourable exceptions, we do not think that teachers apply themselves to this branch of instruction—the writing of prescriptions—with the energy which they might display. There are plenty of men turned out of the schools each year well qualified, as regards their knowledge of pathology and the *principles* of treatment, to hold their own perfectly well, and to act as safe guardians of the public health; but set them down to write a prescription in tolerable Latin, and with a just recognition of the qualities of the drugs employed, their compatibility or appropriateness of dose and form, and they will produce results sufficiently remarkable to excite the astonishment of any druggist's assistant who is used to the well-conceived productions of more experienced advisers. We chance to know that at two recent examinations the deficiency of candidates in this respect was very striking. At the examination in Medicine at the College of Surgeons, there were instances of lamentable ignorance in regard of the proper doses of drugs; whilst even at the second M.B. examination of the London University—the last place where such ignorance would be looked for,—signal examples occurred of men, otherwise well instructed, who could not write a decent prescription in Latin. There is, no doubt, one good reason for this deficiency. In hospital practice, students are so much more accustomed to see the severest forms of organic disease than functional derangements of passing character, that they are, in the nature of things, from observing the inertness of drugs in checking the tendency to death, disposed to scepticism about the value of such agents. It is one of the weak points, indeed, of medical education that the student can with difficulty receive adequate instruction respecting the class of ailments which abound in private practice, but are rarely seen within the walls of hospitals. In this respect he, no doubt, was better circumstanced under the old system of apprenticeship. Scattered through the kingdom, there are great numbers of private practitioners who, from long experience, have acquired for themselves a knowledge of the use of drugs, and the best mode of employing them, which is of daily service in their practice. This knowledge, it must be allowed, cannot altogether be *taught* anywhere. The lesson has to be learnt in great part by the practitioner himself, and he has often to go through many disappointments and mortifications ere he learns it. The inapplicability of a drug under certain circumstances, its objectionable qualities as regards taste, form, and colour to persons of peculiar nature, the results which it produces, and the time occupied in producing them, together with numberless other apparently trivial but really important matters, constitute bits of knowledge which often make all the difference in the success or failure of a medical man's career. And here we would urge that great consideration is due to the public upon such points. Our patients blindly swallow what we order them; follow our instructions, however disagreeable; and it is palpably a duty which we owe to society that the results which we seek to attain should be brought about with the least discomfort possible to those who thus submit themselves to our orders. Every day's experience shows us that for almost every therapeutical indication there are several modes of arriving at an equally good end, some easily followed and not disagreeable, others in the last degree vexatious and uncomfortable. Successful general practitioners expert in this kind of knowledge may, and very often do, impart the most useful hints to their pupils upon this subject—hints which in their future career they turn to profitable account. The physicians and surgeons of our hospitals, equally well-informed as they doubtless are in such matters, do not, we think, always reflect upon the duty of impressing such experience upon the pupils in the wards. We have seen, over and over again, in the metropolitan hospitals, prescriptions which we should never dream of employing in the case of a private patient. The different habits of life which make the treatment suitable in the one case would pretty certainly entail the loss of a patient if it were employed in the other. It is for the teacher to remember this difference, and to point out the fact to his pupils. It is for him also to see, by frequent examination, that the student is able to frame his thoughts, when prescribing, in suitable words, and with a just appreciation of what is sought to be effected by the prescription. The world is large. For every patient unhappily afflicted with irremediable disease, the practitioner will meet with fifty in which a dexterous employment of the drugs at his command will make all the difference in the sufferer's comfort, and in the duration of the passing malady. To effect this object, however, he must have that delicate insight into the uses of drugs which is not acquired without a good deal of trouble in the wards of an hospital. But whilst we thus allow the difference of the circumstances and the difficulty of contending against them, we still think that more might be done in the way of teaching the student to exercise a little taste and refinement in the writing of a prescription, and in ensuring that he is accurately acquainted with the appropriate doses of the drugs he employs.

A PROTEST has been most properly made by Dr. GIBSON, the resident medical officer of the St. Pancras Workhouse, against the recent attempt on the part of the guardians to burke inquiry by the coroner in cases of sudden or suspicious death. Dr. GIBSON expresses "his feeling of mental pain and regret at the statement of the Chairman and other members of the Board that he and his colleagues got up inquests for the sake of the fees which were in consequence received. Neither he nor they had in any case done more than furnish to the coroner's officer a statement of the cases which, in their opinion, rendered an inquiry desirable. In no single instance where an inquest had been held had the coroner or jury said the inquiry was unnecessary. In justice to himself and his

colleagues, he could not allow to pass unchallenged a charge calculated to lower both them and himself in the estimation of the Board of Guardians, of the public, of the medical profession, and of the patients under their charge."

To put the responsibility of holding unnecessary inquests on Dr. GIBSON is most unfair. It is the duty of the coroner to determine the propriety of holding them, and Dr. GIBSON does neither more nor less than his duty in supplying the data which come within his observation. If the allegation of the Chairman of the Board of Guardians had been supported by a single fact—if on any occasion, for example, the jury had expressed an opinion that they had been unreasonably summoned to an improper case,—there might have been some excuse for this unwarrantable charge; but it must be well known to Mr. WYATT and to the members of the Board that by far the larger number of inquests are held upon bodies which have been brought in dead by the police, on which an inquest is necessarily held, without the intervention of the medical officer. The number of suspicious and sudden deaths amongst the workhouse inmates is comparatively small, and there is not a tittle of evidence to show that inquests upon them have been unusually frequent, or that they have increased since the workhouse has been under Dr. GIBSON's charge. We have even been informed that Dr. GIBSON has offered to devote all fees arising from inquests held on persons who have died under his own care, to the purchase of pictures, toys, flowers, &c., for the workhouse sick wards. The real objects sought for by the guardians were the reduction of the fees payable to the medical officer by law, and a diminution of the coroner's salary by a few pounds annually. We confess our surprise that a county magistrate should cast a slur upon an honourable servant for such a paltry purpose, and should risk complete publicity for so small a gain.

But, so far from grudging the medical officer of any workhouse his fees for promoting inquiry into sudden and suspicious deaths, the public ought to rejoice that he has a direct interest in bringing them under the observation of the coroner. Better a thousand times have a few inquiries too many than one too few. It was only last week that the desirableness of having more frequent inquiries into "deaths in workhouses" was well illustrated at Mile-end. A man was brought into the workhouse infirmary on the 9th ult., apparently labouring under "rheumatic fever." He asked to see the doctor, and was told not to make such a noise, as he would be better by-and-by. Notwithstanding the poor fellow's repeated request, the doctor did not see him, and he died at midnight. Three weeks afterwards these facts came out for the first time, and a species of inquiry was then instituted by the clerk of the guardians. The principal witness—a pauper who slept in the next bed—refused to attend and give evidence, and the statement of the nurse was alone taken. The matter was discussed by the board of guardians, and referred to the Visiting Committee for further investigation. Lastly, the certificate of death was signed by one of the medical officers who attends the out-door sick; and in this we are informed that the man died of bronchitis and pyæmia, and not of rheumatic fever, as might have been supposed. Now, we would seriously ask whether any proceedings could be more unsatisfactory than these. How came it that a man was transported to the workhouse in this evidently dying state? How came it that no report of his illness was sent with him, so that its nature and urgency might be clearly known? How was it that in so serious a case the medical officer was not immediately sent for? And, when death ensued, why was not an inquest held? It is possible that the man received every proper care; but no one can be sure. It is obvious that the present machinery does not secure that complete publicity which is the only safeguard against neglect. We venture to doubt if the clerk to the board of guardians would have taken in this case any active steps to promote a proper investigation; for when the facts were brought to his notice by a letter in the *East London Observer*, he proceeded to act upon his own responsibility as if he were coroner himself. There is no guarantee that the investigation will be completely made by the Visiting Committee, or the result made known. Of what use are coroners if not to investigate such cases? So far from imposing any obstacle whatever to the holding of inquests upon persons who die in workhouses, we think it a serious question whether they should not be held in every case, or, at all events, that the circumstances connected with every death should be certified as satisfactory by some thoroughly independent person. In the meantime, there is no one so competent to communicate the necessary information to the coroner as the medical officer; and, instead of being snubbed and found fault with, he should be encouraged to leave the question entirely in the coroner's hands.

We think that Dr. GIBSON and his colleagues have serious cause of complaint as to the treatment they have received, and the guardians of St. Pancras cannot expect long to retain the services of men of high feeling if they continue to treat them in this way. Within the last twelve months no less than four medical officers have resigned their position at the workhouse from causes totally unconnected with any neglect of their duties, and to escape from the repeated petty annoyances to which they have been subjected. The guardians seem to regard them in the light of common servants, rather than as members of an honourable profession. We trust that such treatment will not escape the observation of the Poor-law Board, and, although we have no confidence whatever in Dr. MARKHAM's protection, we hope that the guardians will not be permitted, without remonstrance or remark, to bully their officers as they have been doing lately.

ALL human institutions tend to gravitate towards abuses. However lofty in their original aims, and however pure the intentions of those concerned in working them, nothing but the constant watchfulness of impartial observers can prevent the occurrence of those forms of degeneracy that attain their final development in a job. The downward steps are often so gradual that each may be taken unconsciously, and the resulting departure from some right standard may in time become so considerable, that it is startling when fairly looked at, and that any proposal to make it suddenly and at once would at any time have been considered outrageous. When attention is called to such departures, destruction is apt to take the place of reform, and the nucleus of good is too often sacrificed, on account of the evils that have clustered around it. We seek to-day to direct attention to a matter in which timely reform seems to us to be required.

The practice of giving laudatory letters, called "testimonials," to the students who leave our schools of medicine, is one that

has for some time been productive of ill effects; and that, as now often practised, does not seem to us to be attended by any countervailing advantages. Originating, doubtless, in a praiseworthy desire to assist the more meritorious pupils in their establishment in life, the system of seeking and of giving such letters has become so general, that in certain schools they are now accorded, if not indeed to all, certainly to all but the very idle and the worthless. Moreover, in their wording and construction, it is found that the inventive powers of teachers and lecturers are limited; and that consequently, in a large school, the variations of the English vocabulary of praise are exhausted earlier than the number of applicants. When justice has been done to "the indefatigable industry and application, the power of obtaining knowledge, and the tact and skill in applying it," that characterise Mr. A, no words are left, or at least no other words, in which justice can be done to the merits of Mr. B and Mr. C. And hence there are schools in London at which the teachers have indeed cultivated the art of testimonial writing with success, but chiefly in the direction of vigour, and with much sacrifice of variety. Each lecturer has appeared to aim at producing the framework or skeleton of an ideally perfect testimonial; and this skeleton, modified perhaps by trifling differences in its soft parts, has been given, almost as a matter of course, to every respectable applicant—that is, to nineteen out of every twenty, or often, we hope, even to a larger proportion, of the students leaving the school. Lecturers who give their minds to the production of testimonials are naturally prone to compose them well; and many have already succeeded so admirably, that, if any future generation of pupils should surpass those of the present day, it will become necessary to break through the restraints of prose, and to celebrate their parts and attainments in poetic metaphor. The very beauty of the compositions has led, in many cases, to results that could scarcely have been contemplated by their authors. It has become the custom of young practitioners, in recent times, to publish the effusions they have received, often in the form of a neat volume, with a cover sufficiently pretty to be accepted as an adornment for the drawing-room tables of their relatives and friends, and with pages enriched by type borders and other beauties of the printer's art. Almost every hospital vacancy, especially in provincial towns, calls forth something of this kind; and the little books are eagerly read by old ladies, of both sexes, who have either votes for the charity or ailments of their own. We presume there is some sort of understanding by which pupils of the same hospital seldom run on the same rail; because it would be awkward to find rivals putting forth letters from the same men, couched in nearly the same words. Seriously, however, we believe that it has become a common practice to give eulogistic testimonials to all students, or to all but a few; that these testimonials bear little real relation to the merits of the recipient; and that they are, in general, unnecessarily laudatory, containing expressions which their authors would not think it right to use in private conversation about the men to whom they refer. If this be so, such letters cannot be otherwise than hurtful: always, by rendering their recipients unnaturally conceited, foolishly content with their actual acquirements, and idly prepared to rest upon them; and occasionally, by helping to thrust them, it may be over the heads of better men, into positions for which they are unfit. As helps to the public to decide between the qualifications of rivals, they are, of course, absolutely worthless.

With regard to the manner in which this custom has been brought about, a moment's reflection will show that it is the result of a faulty system, and that the persons concerned in it are practically blameless. If once we concede that individual lecturers may give testimonials, embodying opinions, to their students, all the rest follows as a matter of course. We have but to imagine a feeling of some pride in the best men of the year, of some enthusiasm about their future, of some desire to help them. Next comes the impossibility of drawing a line between the best men and the second best (especially when the difference is in intellect, and not in habits or morals), and the difficulty, to say the least, of drawing the line between the second best and the third best. Mr. A has had a testimonial, Mr. B must have one too. C and D cannot be refused; and the wording of the document, in any case, soon becomes a question depending upon the style of the author, rather than upon the qualities of the recipient.

At certain schools, we are informed, a perception of the evils of the testimonial system has led to arrangements by which these documents become, when given, the gift of the lecturers as a body; and by which all responsibility for them is thrown upon the Dean, or some other official. The change is well intentioned, but in no way goes to the root of the matter. There is a great deal of human nature in Deans; and the system would soon find itself face to face with the old question—as old as human nature,—"Quis custodiet custodes?" We think that two leading principles should be kept constantly in view: first, that testimonials should only be given with reference to the attainment of some particular object, and with the stipulation that they should not be used for any other, or for publication, as helps to practice; and, secondly, that they should only contain statements admitting of verification by the registers of the school, and hence capable of being made again and again, if necessary, on official authority. It is perfectly undeniable that the diligent student is entitled to receive from his teachers some evidence of his diligence; but in order that he may receive this in a truthful and trustworthy form, the present testimonial should be so modified as to express only facts, and not opinions. We often see a substratum of facts at present, such as a record of prizes gained, or of offices served in the school or hospital. If the document ended here it would have some value; although offices are conferred on various grounds, and although prizes are not always the best proofs of capacity for practice. But it would be easy to devise a system of periodical examinations and of inspection of work, under which every student might have his numerical place among the men of his year, with reference alike to general proficiency and to individual branches of knowledge—a place which, if high, would be the only testimonial he would require, and, if low, would be the only testimonial he would deserve.

For the competitions of later, but still of early professional life, it would be a great boon to deserving men, and a great help to the public, if the Colleges of Physicians and Surgeons would hold an annual examination for honours for qualified men fresh from the schools. It has been doubted whether the standard of the pass examination is sufficiently high to afford the most complete attainable protection to the public; and, after the requirements of this standard had been satisfied, there

would be great advantage in giving to industrious and ambitious men a further opportunity for the display of their powers. Such an opportunity would, moreover, render it possible very materially to elevate the requirements for the Fellowship of the College of Surgeons; and the hope of a good place on the honours list of the year would be an incentive to industry, that could not fail, in time, to elevate the whole profession. With such a distinction within their reach, students would no longer desire, and indeed could no longer use, the testimonials that are now too much in fashion; and that, as descriptive of themselves, few young man of sense or modesty could read aloud without a blush. We commend this matter to the consideration of the Medical Teachers' Association, feeling well assured that the public estimate of the value of written medical evidence is seriously affected by the character of the "testimonials" that inundate our towns and villages, and that describe a multitude of youthful prophets who are, and are likely to remain, only moderately honoured in the vicinity of their own homes.

THE business of the Epidemiological Society, for the session 1868–9, was commenced on Wednesday evening by an address from Dr. SEATON, the President. In this address Dr. SEATON took occasion to review the past history of the Society, the work it had undertaken and achieved, and the progress that had been made, since its foundation, in our knowledge of the modes of origin and of propagation of disease, as well as in preventive medicine and sanitary legislation. The retrospect was a very cheering one, and fairly justifies the hope that the lapse of a few more years may bring the laws relating to public health into a condition adapted to English requirements, and commensurate with English civilization. On the subject of small-pox the Society has been especially active, and extremely useful, and Dr. SEATON dwelt with graceful and pardonable pride upon the diminution of mortality, to which his own untiring labours have so largely contributed. He was able to say that, during the first ten months of the present year, only seven deaths from small-pox had been registered in Ireland, and that the Vaccination Act of 1867, although in some respects imperfect, and, at all events, not what the Society had wished to make it, was working efficiently and well in many places. The knowledge that has been gained about the action of unwholesome water in spreading disease was mentioned as another subject of congratulation; and then the address dwelt upon the requirements of the future. The investigations undertaken by the Medical Department of the Privy Council, directed by Mr. SIMON, and supported by the public purse, have superseded the inquiries which were included among the original objects of the Society. But, notwithstanding this, there is an abundance of work to be done, of work within the reach of the members, and within the compass of the funds of the Society. In this eminently practical portion of his discourse, Dr. SEATON called attention to our want of more definite knowledge about the duration and the radius of contagion, and about the periods of different diseases at which contagion from them was most active. He expressed the hope that some second JENNER might discover the means of preserving us from scarlet fever. He dwelt forcibly upon the need for workers, and urged young men to join the Society, and to take part in its labours; incidentally assuring them that the attention of the public was being rapidly called to the importance of sanitary science, and that those who promoted it in their youth, while waiting to take their places in life, would find that they had engaged in a pursuit not wanting in its rewards.

It is not often, we think, that the president of a medical society can inaugurate a session by thus pointing out to the members such fruit of their endeavours, and such tasks lying ready to their hands. Records of papers read, of volumes published, of debates pleasant and instructive, other societies have in abundance. The Epidemiological has these and more. It has a history that proves it to have stood in the very front of the battle for sanitary legislation and sanitary reform; it has been instrumental in saving the lives of thousands of our fellow-countrymen; it is still pursuing its useful and beneficent career, and it may fairly look forward to becoming, at no distant period, a power in the State. The political turmoil of recent years, the bickerings about nothing of politicians who fancied themselves statesmen, the reckless disregard of national wants and waste of national time that have characterised our recent legislation,—all these are evils likely soon to be buried in oblivion. Englishmen are weary of strife that aims only at means; and they now look to the leaders of the nation to accomplish some useful ends. In the present state of England, sanitary legislation is perhaps the greatest end after which it would be possible for patriotism to strive.

Medical Annotations.

"Ne quid nimis."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

AT the meeting of this Society on Tuesday night a paper was read by Dr. Bain, of the Poplar Hospital, on an Improved Method of practising Artificial Respiration in cases of Suspended Animation. The method described was a modification of and improvement upon that of Professor Pacini, of Florence. The paper contained an account of numerous experiments, the results of which seemed to be favourable to the plan advanced. The reading was followed by a long and interesting debate, continued much beyond the usual hour; and Dr. Peacock suggested that the method proposed by Dr. Bain should be examined and reported upon by a committee. This proposal, which appeared to receive the general assent of the Fellows present, will be brought before the Council at their next meeting.

With the exception of a paper by the late Dr. Hillier, there is at present nothing ready to be laid before the next meeting. We trust that some of the Fellows will employ the Christmas recess in the preparation of papers that will maintain and enhance the reputation of the Society.

We are glad to be able to state that steps have been taken to alter the present mode of selecting papers for publication in the "Transactions" of this Society. On Tuesday last, at the meeting of the Council, Mr. Henry Lee gave notice of a motion to the effect that in future all papers should be left for the inspection of the members of the Council before they were put to the ballot. There is little doubt that the disputation during several past sessions in reference to the capricious publication or rejection of individual communications has prevented many members from contributing what would have been very valuable additions to medical science. The Council, with whom the responsibility rests of selecting the papers, had no opportunity of judging of their value. If the ab-

stract of the paper which is published in the Proceedings, and which is read to the Council, be long, it is regarded as a reason against the publication of the paper in the "Transactions" themselves; if short, it gives of course an inadequate idea of the real merit of the paper. The Council have then to depend upon the report of the referees, and the objections to their decision have often been pointed out. When any doubt exists, the paper is then generally sent to a third referee, with whom the whole responsibility lies of giving an opinion which shall guide the Council. The entire onus in the matter of selection remains with the Council, and they ought to have the means of judging of the value of the papers before they give their verdict upon them. Unless something of this kind is done, the Medical and Chirurgical Society is in danger of losing its prestige; and no little credit is due to Mr. Lee for the step he has taken.

THE CABINET AND THE LONDON UNIVERSITY.

AFTER a long delay in obtaining the franchise, the University of London is suddenly, upon the election of its first member, taking quite a prominent place in political life. Mr. Lowe expressed his sense of the honour done to him by his unsolicited election, and the University, on its side, may well feel proud at returning to Parliament a Chancellor of the Exchequer who, if he fail in the difficult task of satisfying the public requirements, will certainly not fail from any want of ability, but who indeed promises rather to show himself conspicuously fitted for the post. But not by its member alone is the University of London strongly represented in the new cabinet. Besides Mr. Lowe, there is the Earl of Kimberley, Lord Privy Seal; the Chancellor of the University itself, Earl Granville, Secretary of State for the Colonies; Mr. Cardwell, Secretary of State for War; Mr. Goschen, President of the Poor-law Board; all on the Senate of the University, and all deeply interested in its welfare and progress.

"LOSING CARDS."

AMONGST the occupations which almost necessarily entail damage to health, a notably dangerous one is the enamelling of the backs of playing cards. When we are intent upon our "quiet rubber," and express a preference, perhaps, for the green pack as representing the "winning cards," we are apt to forget that their brilliant colour is due to a combination of arsenic with copper. The unfortunate artisan, however, who colours them has bitter cause to remember the fact in the injury received, especially by his eyes and nostrils. He knows, too—his palsied hands will often teach him,—that the smooth glaze which makes the cards so easy to shuffle depends upon a coating of white lead. Toy- and doll-makers run similar risks. We have been appealed to on behalf of those following noxious trades, whose case seems, indeed, to be a hard one. Men so occupied are frequently excluded from the benefits of sick-clubs by reason of the deadly nature of their work, and so, however ill they may be, they have to work on as best they can, or the wife and little ones would starve. Of course it is very imprudent of persons to engage in such deleterious occupations; but everyone knows that, so long as there is a demand for this kind of work, men will be found to undertake it. The processes, however, which are followed, are often rude and capable of great improvement—at least in respect of the hazard to health which is incurred,—and the State might usefully insist upon medical inspection of the workshops, with a view of reducing this risk to a minimum.

THE STAMPING-OUT OF GOITRE.

IF the benefit of sanitary measures were not an indisputable fact, we could not point to a better example than that which is afforded by the results of the general hygienic precautions taken in the department of Upper Savoy for the stamping-out of goitre. Among the measures which have been adopted, according to the prescriptions of a committee of medical men, we may mention the felling of trees in the villages, which prevented the free circulation of air and light; a careful analysis of the waters, so as to permit the use only of those which are fit for drinking purposes; the proper drainage of damp streets, &c. &c. Strict surveillance has been exercised over the sanitary discipline of schools; and each day pastilles containing small quantities of iodine were administered to the children, together with a decoction of walnut leaves. The results of these measures have been most satisfactory. More than 5000 children have been submitted to this treatment, 2000 of whom have been completely cured, and 2000 are progressing favourably. It is not surprising to hear that the Prefect of the department has met with great opposition on the part of the parents while enforcing these measures. Besides that natural tendency to resist all innovations which is generally observed in remote parts of the provinces, the people of Upper Savoy have another and a stronger motive for opposing the stamping-out of goitre: the disease is a cause of exemption from military service. The Prefect therefore advises the Government to remove the interdiction which debars goitrous subjects from the army. Not only would this be attended by the advantage of causing the parents to withhold any further resistance to the adoption of sanitary measures, but it would force the young men affected with goitre to take a change of air, and prevent them from marrying in their country and thus further propagating the disease.

THE CAVALRY BARRACKS AT WINDSOR.

IT is extremely gratifying to find that the cause of the defective water-supply to the cavalry barracks at Windsor, which Sir John Pakington was unable to account for when questioned in the House of Commons by Mr. Otway, M.P., has been discovered and removed. It was found that the main-supply pipe was too long, and that in consequence the pressure became so diminished towards the extremity that the tanks were never properly filled. Two other supply pipes have been added, and there are now no complaints of deficiency in any part of the barracks. The troublesome closets have also been removed from the officers' quarters, and some of simpler construction are put in. A report has been called for as to the efficiency of the sanitary machinery, and it is hoped that great improvements will result from the labours of a committee which is now engaged upon the subject at the War-office.

RADCLIFFE INFIRMARY, OXFORD.

A SPECIAL meeting of governors was held in the board-room on the 2nd instant for the purpose of receiving a statement respecting the financial position of the infirmary, and for considering the advisability of closing one or more of the wards either temporarily or permanently, should further funds not be forthcoming. It appears from the treasurer's statement that for several years past there has been a steadily increasing deficiency, and the alternative presents itself either to reduce the number of patients or to increase the annual receipts to the extent of meeting the current expenditure. Dr. Rolleston brought up a report from the committee appointed to inquire into the matter, in which (after referring to the opinion they had obtained from a high statistical authority that, whereas the proportion of hospital accommodation for Oxford and its neighbourhood only amounted to one bed per 1745 inhabitants, the minimum accommodation ought not to be less than one bed per 1000 inhabitants) it was urged upon the governors that every effort to procure additional funds should be made before they proceeded to diminish the already inadequate hospital accommodation available within the district. Dr. Rolleston's opinion was that by modifying the system of admission it would be possible to circulate a larger number of patients through an equal

number of beds than at present, and thus to give a stronger claim to the infirmary upon public sympathy and support. Dr. Acland thought that the permanent closing of the wards for want of funds would be a suicidal policy: he would rather sell out their capital to the necessary extent to keep them open. The feeling of the court was decidedly opposed to shutting up any of the wards, and a resolution to that effect was unanimously adopted, in the hope that, the increasing requirements of the infirmary having been now become fully known, successful efforts would be made to insure increased subscriptions and donations throughout the county. The Dean of Christ Church announced that the newly-elected burgesses of the University, Mr. Gathorne Hardy and Mr. Mowbray, had promised to subscribe £50 each towards the infirmary, on condition that the money was not applied in liquidation of the existing debt.

THE REMOVAL OF SCARLET-FEVER PATIENTS.

SOME letters have appeared in *The Times* concerning the alleged removal of a boy from Marlborough College at a period when he had had scarlet fever, and was still in a state to communicate it to others. It is said that "long before it was safe for others that he should travel," he was "careering through the country on two lines of rail."

It is rather singular that neither the original complainant, nor the master of Marlborough College in his defence, throws the smallest light upon the facts of the matter, or affords any data for determining whether, in the particular case, the period of danger to others was past or not. The master says it is the practice to send away boys who have suffered from infectious disorders as soon as "convalescence has so far progressed as to make a longer stay in the sick wards of a school hospital likely to retard recovery;" but he does not tell us how soon this time comes, or who is responsible for fixing the date of its arrival. The law, however, now declares, and declares very plainly, that persons in a state to communicate infectious diseases to others shall not expose themselves by travelling about; and there can be no doubt either of the wisdom of the enactment or of the necessity for its being strictly enforced. It is, however, extremely difficult to decide how soon the convalescent may safely mingle with other persons. In scarlet fever, the earliest time that could be laid down would be when the desquamation of the skin was completed, and after all the dead cuticle had been thoroughly cleansed away. Whenever a prosecution, under the Sanitary Act of 1866, for the improper removal of a patient, takes place, the question of danger or safety, as the law now stands, will have to be decided by medical evidence; and we cannot but think that the Act itself might very advantageously be amended by the addition of words defining the duration, for each of the more common infectious diseases, of the time during which exposure should be prohibited.

MEDICAL INTERESTS AND THE NEW PARLIAMENT.

THE general election which is just over has been decidedly favourable to the interests of the medical profession. We may in the first place cite the new member for the Universities of Edinburgh and St. Andrews, who, after a most active and well-worked canvass, conducted in almost every town of the United Kingdom, has been returned by a majority of 255 out of a total of 4389 polled votes. In referring to this election, we may remind our readers that the position held by Dr. Lyon Playfair is eminently honourable, and specially responsible; for he is charged with the representation of the most cosmopolitan constituency in the three kingdoms. The graduates of Edinburgh and St. Andrews are widely scattered over the globe, and if their representative makes it his care and concern to take an active part in all questions affecting the welfare of his constituency, he has undertaken a laborious task, but one of which he may with justice be superlatively proud. We believe that Dr. Playfair is well fitted for the position in which he has been recently placed; that his intimate acquaintance with all subjects akin to medicine, his close and constant association with medical and scientific men, his accurate knowledge of the laws and principles of sanitary science, and his avowed dissatisfaction with the present state of Poor-law medical relief, will all combine to make him a useful member to the profession, and to justify the first choice that the graduates of these Universities have made.

It will be seen that Mr. Moncreiff has won the seat for the Universities of Glasgow and Aberdeen by 57 votes. We are assured that this gentleman has much interest in medical affairs, and have to congratulate the electors on possessing a member who holds a conspicuous and responsible position in the present Ministry. The House of Commons has also received an accession of strength by the addition of two new medical members. Dr. Lush, who has been elected for Salisbury, is a physician of honourable position and acquirements, and is likely to be a most useful representative. The Poor-law medical officers may expect great assistance from him, inasmuch as he was for some time one of themselves. A like favourable mention may be made of Dr. Dalrymple, who now represents the city of Bath. Mr. Vanderbyl, Mr. Clements, Sir John Gray, M.D., and Dr. Brady, are again returned.

We trust that the many important questions of social and sanitary reform that should engage the attention of Parliament during the ensuing session will receive from these gentlemen energetic attention and sound practical aid.

THE MARSHALL HALL MEMORIAL SCHOLARSHIP.

THE proposal to found a scholarship in memory of Dr. Marshall Hall has met with a remarkable degree of acceptance both in the provinces and in the metropolitan cities of the United Kingdom; more remarkable still when we consider the fact that ten or twelve years have already elapsed since the death of this famous member of our profession. To those who live in the fuller light of a more advanced physiology, it is not easy to appreciate the services which were rendered by Dr. Marshall Hall. To do so fully we must read the works of the best physicians of his time, and see how largely Dr. Marshall Hall's views and theories gave the key to their best practice. For there was this grand peculiarity about all Dr. Marshall Hall's thoughts and labours,—they had a practical bearing. The physiologist was merged in the physician. Take, for example, his exposition of reflex action. How fruitful it has been of good practice. Recent pathology has extended the application of this reflex theory, so that we speak now not only of reflex action, but of reflex paralysis. Dr. Marshall Hall's directions for practising artificial respiration had all the simplicity of genius about them. They constitute emphatically "the ready method," and remain, in our opinion, the best instructions that have yet been given for the restoration of respiration. A case was reported in THE LANCET of last week, in which respiration was excited in a still-born child at the end of three-quarters of an hour by this method. Dr. Hall's excito-motory theory, and his instructions for the carrying on of artificial respiration, represent the at once brilliant and practical character of his mind. He, in short, combined the qualities of an original and experimental physiologist with those of a practical and humane physician, eager to make medicine useful as an art, as well as respectable from a scientific point of view.

If any men are to be held in remembrance in our schools it is surely such as Dr. Marshall Hall; and we earnestly wish this undertaking every success. Dr. Hall had many professional relations. He was a graduate of Edinburgh; he practised in the provinces, and afterwards achieved a great reputation in London. He visited America, and was greatly honoured by our brethren of the United States. We feel it

due to ourselves not to let a great life like this be forgotten. It should be kept in remembrance, so that students may be incited to the imitation of it. We therefore commend the scheme for a Memorial Scholarship to the profession. Much will depend upon the reception given to the proposal by the contemporaries of Dr. Marshall Hall. True, contemporaries are not always the best judges of a man. They are apt to remember his faults rather than his merits. But the years that have elapsed since Dr. Hall's death have not tarnished the lustre of his principal labours, and they are long enough to have obliterated any memory of his faults. Men of earnest practical genius will take fresh courage if even at this late time we determine worthily to commemorate Dr. Marshall Hall.

We would only further suggest that any funds which may be raised for this purpose should be so disposed of as to interest the various schools of the country, and to illustrate the many relations and wide reputation of Dr. Marshall Hall.

FEVER IN LONDON.

WE learn by the kind information of Dr. Barbour, the resident medical officer of the London Fever Hospital, that though there is still a great amount of fever in London and in the hospital, the number of the cases in that institution has diminished, perhaps by forty or fifty cases, within the last few weeks. The diminution is rather in the amount of typhoid than of typhus. Of the latter disease there is a great deal in London at present, and more may be anticipated if any continuance of severe weather should characterise the winter months. This operates in a twofold way—first, by interrupting the employment of the poor, and secondly by driving them in greater number into their houses. The cases come principally from the East-end of London, Stepney, Whitechapel, Shoreditch, &c. It is of great moment that typhus among the poor should be early detected, and speedily removed to the hospital. Medical care and various parochial arrangements are necessary for this purpose. A very great evil with which the authorities of the Fever Hospital have had to contend is the careless habit of sending cases to the hospital which are found to be not cases of fever. They have had to make serious representations of this evil to parochial authorities. We are glad to learn that these representations have had the desired effect, and that much greater accuracy of diagnosis is now apparent in the cases sent to the hospital. The diagnosis of fever and the differentiation of it are not always perfectly easy; but with great care mistakes will not be frequent.

BROMIDE OF POTASSIUM IN THE NURSERY.

SCARCELY any modern remedy has enjoyed such favour among practitioners, and been the subject of such extensive research, as bromide of potassium. Its effects have been vaunted in a considerable number of maladies where it is necessary to exert a sedative action upon the nervous system—for instance, epilepsy, croup, headache, &c. M. Moutard-Martin, a nosocomial physician of Paris, now informs us that it has proved a most useful remedy in his hands for combating certain infantile diseases, and has been of especial service in producing a condition of tranquillity in children who are much agitated by disease, and in procuring rest to infants who are deprived of sleep. The suffering which some children undergo from want of sleep, even when not otherwise ill, and the distress to which they put their nurses or parents, are so great that any remedy having, like the one in question, the property of inducing needful repose must be most welcome both to practitioners and parents. M. Moutard-Martin states that when every other remedy—such as the warm bath, orange-flower water, and the infusion of cherry—has failed in such cases, the bromide of potassium has given the most remarkable results. There are also other cases in which its employment is very valuable in infantile therapeutics. The nervous erythism which attends dentition, and which manifests itself by a condition of excitement, cough, and sleeplessness, is often abated by the employment of the medicament; and M. Moutard-Martin is confident that its timely and proper use may even ward off attacks of convulsions. In many cases its action is very prompt and decisive. It should be administered to very young children in weak doses of from five to twenty centigrammes, and should be withheld in cases of diarrhœa.

THE PRESIDENCY OF THE POOR-LAW BOARD.

WE cannot help expressing some feeling of regret that we shall not again have the familiar name of the Right Hon. C. P. Villiers as representing the head of the Poor-law Board. He has already rendered such important services to the State by the measures which he has carried for the amelioration of the Poor Law—he is so thoroughly acquainted with all its details, and has so lately expressed himself in favour of further improvements, that we should have been well satisfied by his returning to his former post. But we cannot wonder that he should decline. The position presents anything but an agreeable prospect to any but a young, energetic, and aspiring Minister, who is prepared for heavy work. Mr. Goschen has a great opportunity before him. The treatment of our vastly increasing pauperism must ere long become the question of the day, and there is probably no one more able than himself to grapple with its enormous difficulties.

Mr. Goschen will assume his important office with the advantages of a liberal and independent mind, untrammeled by previous association with the obstructive influences which have characterised the Earl of Devon's presidency. He is committed to an equalisation of the poor-rate, which is allowed to be the keystone of any real improvement in the administration of the Poor Law. It is to be hoped, also, that he is fully alive to the baneful influences of indiscriminate and injudicious charity in producing pauperism. We feel certain that he will soon discover the anomalous position of a president without a real, intelligent, and responsible board to preside over; and that he will at a glance find so many difficulties as to make him institute a thorough inquiry into the operation of the Poor Law before he inaugurates the necessary reforms. Meanwhile, we doubt not he will do his best to protect the ratepayers against the ruinous expenditure in buildings which is being everywhere imposed upon them, and at all events defer their execution until an inquiry has been held. There is no post in the Cabinet so thankless as that to which Mr. Goschen is appointed; there is none in which judgment and independence are more required. He deserves therefore the thanks and support of the community; and we hope to have the opportunity of rendering him all the assistance in our power, the more so as we believe he has expressed himself in favour of the cause we have so much at heart—viz., the improvement of the position and pay of Poor-law medical officers.

THE FOTHERGILLIAN PRIZE FUND.

IN consequence of the non-awarding of the Fothergillian prize medal in various years, the interest which has accumulated upon the original principal, £500, has been reinvested, and the total amount of the fund now reaches over £800, irrespective of a balance in the hands of the trustees of nearly £100. It has occurred to certain members of the Council of the Medical Society that the centenary of the Society, which will shortly be celebrated, might be made the occasion for the offer of a prize of sufficient value to induce active competition even amongst the learned of other countries. This scheme has, we understand, been discussed with some warmth; but much difference of opinion exists with regard to the power possessed under the will of the late Dr. Fothergill to appropriate the moneys left by him to any other purpose than the giving of a medal, annually or triennially. The trustees assert that the

present principal is only sufficient to provide annually a medal of the value of £20; that the use, for the purpose of a prize, of the accumulated amount over and above the original £500 would not meet with their sanction, as they believe it would be illegal. It is to be regretted that there is so little competition for the medal. This may be due in part to an ill selection of subjects, and the Council of the Medical Society should look to this point. The proposal to mark in some special manner the centenary of the Society is commendable. It has been suggested that an additional medal of the value of £50 should on that occasion be given away to the writer of the best essay on some therapeutic subject; and there seems no pecuniary difficulty in the way of the reception of such a proposition.

"NEWSPAPER SEWAGE."

THE *Saturday Review*, in a trenchant article under the above title, denounces the practice pursued by certain newspapers of admitting objectionable advertisements into their columns. We are glad to find so influential an organ of public opinion expressing itself strongly with regard to an evil that we were the first to denounce, and that we have done much to cure. On the question of law reports, the public does not require our help to enable it to judge. But the villainy of quack advertisements is not at first sight so apparent; and it is only those who have had opportunities of knowing something of the practices of the shameless rogues who insert them who are able to appreciate rightly the evil which follows their publication. Such opportunities have been abundantly enjoyed by all members of the press; and no newspaper can fairly plead ignorance on the subject. We would quote again, in order to give them greater prominence, the eloquent words of Dr. Richardson, which appeared in our columns last week. Speaking as president of the St. Andrews Medical Graduates' Association, he said of quacks: "Belonging strictly to the worst of the criminal classes, they are moved by no sentiments which the most acute criticism can touch. A professed gambler may have sense of honour, a professed pickpocket may have skill, a professed burglar may have courage; the professed quack has the sins of them all, the saving qualities of none." We commend these observations to the proprietors of the newspapers which are virtually aiding the men whom Dr. Richardson has thus rightfully and righteously described.

SANITARY CONDITION OF FALMOUTH.

MR. ARNOLD TAYLOR, the Home Office Inspector, has been holding an official inquiry at Falmouth upon the sanitary condition of the town, and the alleged default of the local authorities to execute proper sewerage and drainage works. Both the memorialists at whose instance the inquiry was made and the authorities were represented by counsel. Of the unhealthy state of the town there was abundant evidence given by the medical witnesses, one of whom (Dr. Guppy) stated that the water-supply was "very scanty and infrequent" in the higher parts of the town, and that "if the sewers were washed down with it a fine would be inflicted." It seems that two sets of local authorities are concerned in this case—viz., the Town Council as the local board of health of the *town* of Falmouth, and the local board of the *parish* of Falmouth, and that between the two no common basis of action could be agreed upon. Mr. Taylor, however, told them they had better make up their minds to work together, and he recommended them to select an experienced engineer to carry out the necessary works, for if they did not the Secretary of State had power to compel them to do so, or in default he could appoint an engineer and levy rates for the purpose. The local board of the *parish*, at a subsequent meeting for the consideration of Mr. Taylor's recommendation, passed a formal resolution expressive of their desire to have the co-operation of the *town* local board in applying to the Home Secretary for an order, under the Sewage Utilisation Act, 1867, to form one united district for drainage purposes. The difficulty which stops the way of the Falmouth authorities is just that which is experienced in scores of other places—how to get rid of their sewage. They know that it will not do to throw it into the harbour, and yet they are not prepared to face the alternative of providing for its utilisation for agricultural purposes, which would involve expensive works for pumping, in addition to the cost of land. This alternative, however, will, we imagine, have to be accepted sooner or later, and the Falmouth authorities had much better resolve to adopt it at once.

REMOVAL OF THE ENTIRE TONGUE.

ON the 20th of November the entire tongue was excised by Dr. Fenwick, at Montreal, for epithelial cancer. The operation performed was that described by Mr. Nunneley of Leeds. Entering the mouth from the floor, cutting midway between the chin and hyoid bone, between the genio-hyoid muscles, through the opening thus made Dr. Fenwick passed the chain of one of Chassaignac's écraseurs, which was carried back to within a few lines of the epiglottis. He was ably assisted by Dr. G. W. Campbell, Professor of Surgery in McGill College, who drew the tongue forcibly out of the mouth by means of a strong cord which had been previously passed through its substance. Ablation was accomplished in nine minutes. Up to the departure of the mail on the 27th, the patient was doing well, the stump granulating kindly; he could drink freely, and even articulate, though in a husky tone. Not a single unfavourable symptom had occurred since the operation. We may observe that although excision of the tongue has been practised in Jamaica by Dr. Fiddes, this is the first occasion of its performance in Canada, by a gentleman, too, who was the first to excise the knee-joint in the same part of her Majesty's dominions.

THE OBSTETRICAL SOCIETY.

THERE was quite a ruck of papers at the meeting of this popular Society on the 2nd inst., the last before the annual meeting in January. It was unfortunate that there was not time to read Mr. Squire's communication on "Infantile Temperatures in Health and Disease," for the subject is one of great interest and practical importance. An interesting paper, however, by Dr. Copeman of Norwich, "On the Treatment of Imperforate Hymen," excited a very animated discussion, which mainly turned upon the question whether it was advisable to make a free or a very small opening for the discharge of the pent-up fluid. Some of the Fellows even adopted the unusual course of speaking twice upon the question. During the evening Dr. Sansom showed some ingenious soluble pessaries: cones of white wax filled with various solutions—iron, matico, Condy's, morphia, tannate of glycerine, &c.,—and hermetically sealed at the apex by cacao butter.* The latter substance speedily melts, and allows the escape of the fluid, the cone itself becoming liquefied at a later period.

At the next meeting the election of officers will take place. It is generally believed that Dr. Grailly Hewitt will be the new president. We cannot imagine a better selection.

DR. PARKES'S BOOK ON HYGIENE.

Two Prussian military surgeons, Drs. Lex and Roth, are bringing out a work on Hygiene, the prospectus of which states that large use has been made of Dr. Parkes's book, with the author's consent. This is, if we do not err, the right way of going to work when medical writers of one nation wish to give their professional brethren the benefit of what is brought out by medical authors of another nation. A simple translation may, of course, in a bibliographical point of view, be

* These are made by Messrs. Francis, Upper-street, Islington.

interesting; but when we consider the differences of climate, habits, laws, and religion, it will become evident that the practical use of translations of medical works is very limited. A celebrated German work on Forensic Medicine was lately translated into French, and may be of use to those who make this branch of medicine their special study; but the reading of this translation would only mislead the practitioner. The same, or nearly the same, may be said of medicine and surgery, with all their special branches. Fevers, local inflammations, and cutaneous complaints are not the same in Vienna and in London. Affections of the eye the results of injuries, and venereal diseases, differ greatly in Berlin and in Paris. As to hygiene, the German authors above-named have shown their sense in using Dr. Parkes's excellent book just so far as respects general laws and the masterly manner in which our countryman has handled the subject. But to make the book useful to Germans, regard will of course be had to the climate of their country, the government, the military organisation, the habits, virtues, and foibles of the people. It would be well if the example of Drs. Lex and Roth were more frequently followed.

MEDICAL OFFICER OF HEALTH FOR ST. PANCRAS.

THE election of a Medical Officer of Health for the parish of St. Pancras, in consequence of the lamented decease of the late Dr. Hillier, is now definitively fixed for the 14th inst. The responsibility which devolves upon the Vestry with regard to this appointment is of no trivial character; but it is fortunately lessened by the fact that one of the candidates has already enjoyed, and has used to the uttermost, opportunities of displaying his perfect mastery of the work that has to be done. Besides gentlemen of a class that always compete for public appointments, gentlemen of undoubted merit, but of no particular claims, there are three applicants between whom the choice of the Vestry may be said to rest. They are Mr. Balmanno Squire, Dr. Stevenson, and Mr. J. Netten Radcliffe. Mr. Squire and Dr. Stevenson are known to the profession as men of ability and promise. There can be little doubt that they would, either of them, display aptitude and perseverance, first in learning, and eventually in discharging, the duties of a medical officer of health. But, while these gentlemen were still attending lectures, Mr. Radcliffe was already distinguished as a sanitary authority; and he would now, by the weight of his great experience and his European reputation, add dignity and consequence to the office that he seeks. The vestrymen of St. Pancras will, we feel sure, with their wonted intelligence and public spirit, perceive and act upon the vast importance of this distinction. In selecting a personal medical attendant, it is always possible, and often right, to allow much for the promise of the future. But in discharging a trust, and in selecting an officer upon whose management and knowledge the health and lives of others will largely depend, it is necessary to weigh facts in a more rigid balance, to distrust promises, however fair, and to decide in strict accordance with the proofs furnished by the past.

PROTOXIDE OF NITROGEN.

THE opinion which we expressed in the early summer, after a careful observation of the experiments made with this gas as an anæsthetic, has been singularly confirmed by further experience in its use. In THE LANCET of April 18th we wrote: "On the whole, it may be said that the agent as used for the very rapid process of extracting a tooth was certainly a success. The effects, however, did not appear to us such as to give rise to much expectation that the protoxide was at all likely to replace chloroform in any but the very shortest of operations." Again, on May 2nd: "There is a very general feeling that the use of the protoxide can only be very exceptional in the operating theatres, and that it is not comparable with chloroform in many important particulars. Useful when a single tooth has to be extracted, most persons would prefer taking chloroform had they to lose three. This is a fair illustration of the impression made upon the mind by witnessing the administration of the protoxide." Nearly eight months have passed since these opinions were expressed; very competent authorities have investigated and experimented upon the protoxide,—and the judgment then passed remains unshaken. The protoxide of nitrogen is now never employed in the operating theatres of the general metropolitan hospitals. Its use is entirely confined to dental operations. The exaggerated estimate which was formed by some of the value of this agent has not been confirmed by experience. Fortunately, however, this has not interfered, as it might have done, with a continued patient trial of its powers in appropriate cases, and the result is that it takes its place as a very serviceable agent in the class of operations for which we at the outset considered it suitable. The report of the Committee of the Odontological Society appointed to inquire into the action of the gas, which we print on another page, will be read with interest.

EFFECTS OF THE CONTAGIOUS DISEASES ACT.

WE are assured by Mr. Berkeley Hill that much improvement in the health of the persons subjected to this Act has attended the better compliance with its provisions during the year 1868. The surgeons of various districts have kindly furnished for the Contagious Diseases Association an account of the working of the Act in their districts. The complaint of last year is reiterated—that the very limited area over which the preventive measures are restricted is constantly frustrating the object of the Act. Women, strangers to the district, are continually introducing the disease afresh by immigrating thither to gain admission into hospital for the cure of their malady. These are always severely affected, and are liable to communicate a more dangerous form of disease. Dr. Barr, of Aldershot, mentions that of 105 persons examined on one occasion only 14 were detained, 7 of whom had recently arrived in the camp. This improvement in the character of the disease amongst those who have been subjected to the sanitary measures for some time is very marked in all the districts. Dr. Stuart, reporting on Woolwich and Chatham, says: "The character of the disease has wonderfully changed; the frightful effects formerly so common are now rarely found, and when found are in cases of women coming from neighbouring places. I have had cases of diseased women walking from Dover and Chatham to get admittance; and applications from Maidstone, Gravesend, Sittingbourne, and Faversham are far from uncommon." Similar information comes from Portsmouth and Sheerness. The constitutional disease is also said to be milder, and less frequently met with than it was.

There are two great defects in the Act. One is the want of provision for diseased women when pregnant. These should be detained in the parochial infirmaries while under cure. By the establishment of Government Lock Hospitals the local rates have been relieved of the charge of this class of persons, and can well support the maintenance of the few for whom the Act makes no provision. Another important defect in the Act is the absence of power to send very young girls to reformatories, in the same way that young vagrants of either sex are now sent to certified schools and rescued before it is too late.

DELHI SORES.

IT will doubtless be remembered that, ever since Delhi was first garrisoned by British troops in 1857, the soldiers have been very liable to suffer from this very painful and intractable disease. As the sore very commonly attacked the face and hands, it occasioned much disfigurement. As many as

from 400 to 700 per 1000 have been attacked. We are very glad to learn from the Report of the Sanitary Commission just issued that, owing to the use of better water, which is now obtained from the Jumna instead of from wells, and the other sanitary changes which have been effected, the most marked improvement has taken place. The officer commanding at Delhi now reports that there has not been a single case amongst the men of the 79th since they arrived.

LEEDS FEVER HOSPITAL.

THE patients admitted into this institution from July 1st to November 30th have been 333, of whom 42 died. Thirty cases of typhoid fever, and 7 of typhus proved fatal. Of 13 cases of small-pox admitted, it is to be remarked that in none of them was there evidence of vaccination. We are informed that the death-rate has been much reduced since the introduction of Dr. Clifford Allbutt's system of keeping the windows and doors open day and night, and supplying warmth by fires and extra clothing. Our readers may refer to St. George's Hospital Reports, vol. i., 1866, for a paper by Dr. Allbutt on this subject.

DR. ACLAND has been re-elected to represent the University of Oxford, for an additional period of five years, in the General Medical Council.

A VERY sad instance of the perils of practice has come to our knowledge. A fine young fellow, Mr. Edward Maundrell, aged thirty-one, left Tredegar on the 16th November last, where he had been acting as assistant-surgeon to the iron-works, to enter upon his duties as resident medical officer at the workhouse at Manchester. Within a few days he was attacked by typhus, and succumbed to it on the 3rd inst., despite the most unremitting care and attention on the part of Drs. Bowring and Renaud.

WHAT is Leeds doing to improve its sanitary condition? From a statement which appeared in one of the local papers, it seems that it is making very slow progress towards the attainment of a more wholesome existence, notwithstanding the recent appointment of an officer of health, whose powers, however, seem to be needlessly limited.

THE Privy Council have thought it necessary to despatch Dr. Thorne to Barnet to inquire into the cause of the prevalence of fever in that place. Of course the evidences of water-pollution are ample.

A BILL has just passed the House of Commons of Victoria, to make the use of the new Pharmacopœia published under the direction of the General Medical Council compulsory in the colony from the 1st of January next. The various pharmacopœias hitherto followed are therefore superseded.

AT the meeting of the Brighton Town Council last week, Mr. Alderman Brigden suggested that a committee of inquiry should be appointed to report on the drainage into the sea, and to ascertain whether some arrangement could not be made to prevent what is now "the greatest drawback to the town;" but the Council very unwisely declined to act.

THE Manchester and Salford Sanitary Association has commenced its winter course of lectures, at the Hulme Town Hall, with an address by Thomas Turner, Esq., F.R.C.S., on the "Past, Present, and Future of Sanitary Science."

LONDON continues to show a death-rate considerably in excess of the average. The deaths registered last week amounted to 1672, a number greater by 111 than was returned in the preceding week. Scarlatina caused 107 deaths.

ON Tuesday last the thirty-fifth session of the Scientific Congress of France was opened at Montpellier. The programme is most extensive, and includes some interesting questions. But it is to be feared that there will be too much of a good thing, and that the considerable number of subjects to be discussed will produce the same result as at the International Medical Congress of Paris. In order to get through the programme an inconsiderate haste will be manifested; some of the more interesting questions will not be sufficiently ventilated, and others yet more interesting will necessarily be set aside for want of time. Indeed the question may be put whether a formal and binding programme should be enforced at any kind of Congress; or whether a very few questions, discussed with care, and in a practical manner—namely, by short pithy remarks,—would not be better than all the trash and interminable reading which are produced in the French Congresses.

THE trustees of Guest's Hospital, Dudley, have, after an interview with the Earl of Dudley, accepted the Blind Asylum in the Tipton-road for the purposes of the hospital. The sum of upwards of £20,000 left by Mr. Guest will be used as an endowment fund.

THE police force of Bethnal Green have spontaneously presented a gratifying testimonial, in the shape of a silver inkstand, to their surgeon, who retires from practice after the hard work of nearly half a century. The inkstand contains the following inscription:—"Presented to James Rolph, Esq., by the Police of Bethnal Green, K Division, for kindness and attention during the time he was their Divisional Surgeon. Sept. 29th, 1868."

THE number of matriculated students in the Faculty of Medicine at the University of Glasgow during the session of 1867-8, according to the newly issued Calender, amounted to 323. The total number in Arts, Law, Medicine, and Divinity, is stated to have been 1273.

THE Executive Committee of the Social Science Association has, we understand, appointed (subject to the approval of the Council) Mr. Edwin Pears, LL.B. Lond., to be secretary of the Association, in the place of Mr. G. W. Hastings, who is now chairman of the Council. There were twenty-three candidates for the post, most of them possessing very high qualifications.

THE members of the St. Andrews Medical Graduates' Association presented their honorary secretary (Dr. Sedgwick) with a testimonial, in the shape of a handsome carved oak writing-table, together with a silver inkstand, and an illuminated address. Dr. Richardson, in presenting the gift on Thursday week, made a very kind and complimentary speech; and Dr. Sedgwick, in reply, thanked the graduates for their good-will, and expressed a hope that he might still be permitted to work for the Association.

THE *Scotsman* states that the amount of subscriptions paid into the Royal Bank for the Edinburgh Royal Infirmary building fund is upwards of £47,000.

THE Workshops Regulation Act is apparently not meant to become a dead letter in London. At Bow-street, on Saturday last, a dressmaker was fined ten shillings and costs for employing young women at their work after half-past four on a Saturday afternoon.

A MEETING was held on Monday last at Nottingham to devise measures for increasing the funds of the General Hospital in that town. It was proposed by Mr. Morse, the vicar of St. Mary's, that the example of Birmingham should be followed by the Nottingham people, and that one Sunday

should be set apart in each year on which collections in aid of the hospital should be made in every church and chapel throughout the county and town. This was unanimously agreed to, and the last Sunday in January has been fixed upon for the purpose. A regret has been expressed that the hospital alone is to have the benefit of the collections.

METROPOLITAN WATER-SUPPLY: A NEW SCHEME.

AMONG the numerous Parliamentary notices which have duly made their appearance in the *Gazette* anticipatory of the session now entered upon, is one to which, from the nature of the subject to which it refers, and the peculiar circumstances under which it appears, we are desirous of directing attention.

Everybody knows that for a long time past a Royal Commission has had under consideration a variety of schemes, more or less practicable, for giving to the metropolis a supply of water better in quality, more abundant in quantity, and cheaper than that which its inhabitants get at present. The Commission, as we have recently announced on authority, has arrived at the stage of deliberation as to the nature of the report which the evidence received may have warranted, and we are promised that such report will be forthcoming early in the ensuing year. Yet, while this great and important matter is awaiting decision from the high authority to whom it has been referred by the Legislature, a notice appears stating that all the necessary preliminaries have been taken for application to Parliament for a Bill "to effect an improved supply of water within, to, and for the use of the inhabitants of, the metropolis." We are informed upon competent authority that the expenses incident upon the preparation and deposit of plans, advertising, &c., necessarily incurred by the promoters of this undertaking, will hardly fall short of £2000 (exclusive of the deposit upon the estimate required by the standing orders of Parliament to be paid in by the end of this month), so that one would infer an amount of confidence in the ultimate success of the project which we confess is difficult to account for on its merits.

The following condensed summary of the scope of the proposed Bill we extract from the official notification in the *Gazette*:—

"Storage and purification of waters of the Thames above Medmenham; aqueducts, reservoirs, and works for bringing waters to the metropolis; distribution and supply thereof by Metropolitan Board of Works; incorporation of company or body corporate; powers to contract with conservators of the river Thames and the Metropolitan Board of Works and local authorities; powers to those bodies as to works, &c.; purchase of plants, properties, and powers of existing metropolitan waterworks companies; power to levy tolls; removal of mills and weirs on Thames; amendments of Acts, &c."

The proposal involves the purchase of the works and interests of the existing London water companies, and the transfer of the supply to the hands of the Metropolitan Board; to this extent it accords with the views we have often expressed, and which we are hoping will receive the sanction of the Royal Commission. Setting aside the merits or demerits of the London companies, it is now a generally accepted doctrine that the provision of a commodity so important to the health and comfort of the community as water ought not to be dependent on private speculation, but should be supplied in the sole interests of the consumers themselves.

As to the source of the proposed supply, its probable quality and sufficiency, we are bound to say that neither from the notices nor plans deposited, do we draw the conclusion that the problem of the London water-supply is thereby solved. On the contrary, we observe with regret that the Thames, not in its higher and comparatively pure parts, but in its course so low down as between Marlow and Henley, is the source whence the new supply is to be derived. The following powers for purifying and conserving the river are included in the scheme:—

"For prohibiting, from and after a day to be fixed by the Bill, the opening into the river Thames above Henley Reach, or into any navigation, cut, canal, river, or brook flowing into the river above Henley Reach, and within three miles from the said river, any sewer or drain for the flow of sewage or any offensive matter, and for prohibiting from and after a date to be also fixed, the flow or passage into the said river above the point aforesaid, or into any such tributary, cut, canal, or navigation of any such sewage or offensive matter."

And to those who believe in the practicability of ensuring by such (or any other) means the purity of a *navigable* river, having numerous tributaries, and running through or by some large (and many small) towns, villages, and hamlets, to such an extent as to bring its water up to the standard of purity which ought to be insisted upon, the proposed measures will possibly seem sufficient. We do not so believe; and to those who do we recommend an attentive study of the chapters in Dr. Farr's Cholera Report, bearing on the pollution of water by molecular organisms, such as are found to exist in choleraic dejecta. We say, further, that unless the statements contained in that report can be disproved, as they most certainly have not been hitherto, rivers (and especially those navigable in any part of their course) must be regarded as in the main unsafe and objectionable sources whence to draw the drinking water of a population.

As regards the engineering aspect of this new scheme we gather that it is proposed to bring the water from Medmenham by an aqueduct of about thirty-five miles in length, the course of which will be open except for the last three miles nearest London, the fall in the whole distance being only at the rate of about two and a half inches per mile, while the flattest part of the New River course gives a fall of four inches per mile. The aqueduct is to terminate near the new Midland Railway at West End, Hampstead, where there is to be a covered reservoir at the highest point of Shoot-up-hill, the water being forced up into it through a shaft 180 feet in height. Another covered reservoir is to be made on a lower level. These two covered reservoirs will hold together about 70,000,000 gallons—considerably less than the present average daily supply of the metropolis. It seems, indeed, to be in contemplation to provide a separate service for sewer, manufacturing, and other public purposes; but even allowing for that, it is difficult to arrive at any other conclusion than that the storage capacity necessary for the domestic supply (which amounts to 80 per cent. of the whole) is inadequate. It will be remembered that the scheme of Mr. Bateman comprised service reservoirs adequate for ten days' supply at the rate of 200,000,000 gallons per day.

Such are some of the features of the last new project for a metropolitan water-supply whose appearance just now is to us inexplicable on any other ground than that derived from the old adage, "Coming events cast their shadows before." We are free to confess, then, that if the long investigation of the Royal Commission should turn out after all to result in nothing better than the recommendation of a plan such as we have now been discussing, we should be constrained to say of its labours, "*Parturiunt montes, nascetur ridiculus mus.*" We shall meantime hope for better things.

NITROUS OXIDE AS AN ANÆSTHETIC.

AT the meeting of the Odontological Society on Monday last, Mr. Harrison, the Chairman, read a preliminary report of the Committee appointed to investigate the merits of nitrous oxide as an anæsthetic. After alluding to the circumstances which called the Committee into existence—viz., the exhibition of the gas as an anæsthetic by Dr. Evans, in London, in March last, and his donation of £100 for furthering inquiries upon the

subject, the report went on to state that the Committee first performed a large number of experiments upon the lower animals, and then cautiously administered it as an anæsthetic at the Dental and other hospitals, as well as in their own individual practices. The results of their experience thus obtained led them to believe that the agent was, for short operations, as efficient an anæsthetic as any known, and that as far as they were able, from their limited experience—viz., those experiments upon the lower animals, and the recorded statistics of rather more than 2000 administrations—to judge, it was at least as safe as any other at present in use. In no case had any symptoms arisen of an alarming character. In speaking of the advantages protoxide of nitrogen possessed over other anæsthetics, the following were enumerated: rapidity of effects, rapidity of recovery; patients could usually walk, speak correctly, and write with a steady hand within four minutes from the period the anæsthesia was commenced. It was more rarely followed by disagreeable effects; headache and giddiness were rare, and vomiting occurred in under one per cent. of the cases tubulated, and arose in most instances from blood swallowed.

On the other hand, the following disadvantages were mentioned. Its unsuitability for long operations, owing to the transient effects of the gas; and, for the same reason, in cases where, after a severe operation, the smarting and pain would with a more continuous agent be less immediately felt. Other disadvantages named were the expense and the difficulty of preparing as well as of transporting the gas, the more complicated apparatus necessary for the administration of the same, and the greater precautions necessary to ensure certainty in its effects; many of these latter, the Committee felt, would no doubt be soon overcome should the anæsthetic come into more general use.

The Report gave full statistics of 1380 administrations tabulated, the number of each sex and of children, the average time of producing anæsthesia, of anæsthesia and of recovery in each; the number of times it had been given consecutively to a patient at one sitting—viz., six times.

The Committee recommended, after pointing out the symptoms which would probably indicate danger, that the agent should be at once removed, and air freely admitted. In case this should fail to cause free respiration, that artificial respiration should at once be resorted to, their experience upon this head having been obtained from their experiments upon the lower animals.

Were there any cases in which this agent was contra-indicated? It had been given to women far advanced in pregnancy, to persons suffering from phthisis, asthma, and some other affections of the lungs, as well as in cases where, from well-marked arcus senilis and other symptoms, there was every reason to suspect fatty degeneration of the heart. In none of them had there been any symptoms to cause alarm; but of course the agent had been administered in such cases with more than ordinary precaution.

As this was but a preliminary report, the Committee refrained from entering upon the question of the physiological action of the gas, and some others, which they hoped to be able to work out before long, and present to the members of the Odontological Society and the profession at large in their final report. The mode of preparing the gas as recommended by the Committee was described at length, and during the reading of the paper the supply for the next day at the Dental Hospital was generated on the table, and appeared to require hardly any superintendence. The modes of storing the gas, in gasometers, compressed in wrought-iron bottles, as done by Mr. Barth, or condensed into the liquid form in aluminium bronze vessels, as carried out by Dr. Evans, were explained, and the advantage of each commented upon.

Mr. NORTON spoke of the physiological action of the gas. He believed it asphyxiated the patient, as did carbonic acid gas.

Mr. SEWELL supported the views expressed by Mr. Norton.

Dr. SANDERSON differed from the last speakers. The action of nitrous oxide did not produce a condition similar to apnœa. In his experiments on animals he had carefully compared the conditions in each case, registering the respirations and pulsations by the same instrument, and great differences were manifested in the two cases. He expressed himself much pleased with the report, and the fair way in which the Committee had treated the question.

Dr. MARCET fully agreed with Dr. Sanderson that the action of nitrous oxide gas was not that of producing apnœa. He believed it was decomposed in the lungs, and explained upon this hypothesis the various phenomena he had witnessed during its administration.

Mr. COLEMAN felt much hesitation in differing from so great an authority upon physiological chemistry as Dr. Marcet. At the same time he must express his belief that nitrous oxide gas was not decomposed in the blood, and gave chemical and physiological facts in proof of the same. He concluded by stating that practically he endorsed his views by administering the same gas over and over again, providing for the removal of the carbonic acid gas given off from the lungs.

Mr. CATTLIN gave some account of his experiments upon the lower animals. In one case a pig was experimented upon. It was found insensible to pain, but it was by apnœa; for, owing to a mistake, the supply of nitrous oxide had been cut off, and the pig got neither gas nor air.

Mr. CLOVER described his ingenious apparatus for administering the gas, and keeping up its effects in dental operations by admitting it through the nose.

Mr. BRAINE, on behalf of the Committee, mentioned that the gas had been administered to a child of a year old, and to a woman of seventy-five: these were the two extremes contained in the statistics he had worked out.

Mr. HAYNES WALTON asked for some fuller information than that contained in the report respecting its use in surgical operations. The report had confined itself chiefly to dental operations.

Mr. C. J. FOX narrated a case in which he had administered it for twenty minutes, when the female breast was removed by Mr. Carr Jackson.

Mr. Rendall, Mr. Coleman, and Mr. Clover also reported surgical cases of five and six minutes' duration.

A gentleman reminded the meeting of the fact that they possessed local anæsthesia. He had removed a breast to which ice and salt had been employed without any severe pain being felt, and alluded to Dr. Richardson's valuable introduction, the ether spray.

Mr. PORTER (of Messrs. J. Bell and Co.'s), at the request of the President, described a very ingenious plan he had devised for regulating the temperature in producing nitrous oxide gas. As the temperature, and consequently pressure, increased, water was forced up a tube, raising therein a float, which acted upon a lever, and so shut off gradually the supply of gas. The gas was never extinguished; but if it required being safely shut off, or if the bag employed to collect the gas, or gasometer, were filled, a shrill whistle was blown to give alarm.

After a few remarks from the President, the meeting, which was a very crowded one, broke up.

CANCER-FIELDS.

WE had not proposed to return so soon to the consideration of the questions which Mr. Haviland has raised in a paper on which we recently commented; but we are in a manner driven to do so. We have already noticed what seemed to us the rather unseemly publicity which had been given to these speculations by the publication in a non-medical journal of the proceedings of the meeting of the Medical Society of London at which Mr. Haviland's paper was read. This objectionable publicity has now taken larger dimensions, and it becomes a duty to warn the laity, who are quite unable to judge of the soundness of such theories, that, so far from the profession having as yet accepted the propositions respecting the distribution of cancer, phthisis, &c., which Mr. Haviland has put forward, the consideration of them has scarcely so much as begun, and already it is obvious that there are very grave objections to be taken to the manner in which he proposes to prove his case. We have space for no more than a very brief enumeration of the principal of these objections.

1. In the first place, be it noted, that Mr. Haviland has throughout relied upon the figures given in the Registrar-General's tables of mortality for conclusions which cannot be legitimately drawn from them. Not to mention the primary objection of all, that mortality-range is not the same thing as disease-range, the following are most serious:—(a) The total number of cancer cases is so extremely small, that we are, in fact, dealing with exceedingly low fractions. So strikingly is this the case that, on examining at hazard the mortality tables for two registration districts with similar geological

conditions—viz., Midhurst and Thakeham, lying also in the same valley,—we find such an extraordinary difference as the following:—Cancer mortality of Midhurst, 1·737 per 1000; ditto of Thakeham, 4·799 per 1000—in ten years. It is clear that some purely accidental circumstance, such as the introduction of one or two cancerous families into Thakeham district, or the presence of a single hospital, may have singly sufficed to create all the apparent difference; considering, as we said before, the extremely low figures which we are dealing with. (*b*) The uncertainty introduced by the varying excellence of medical diagnosis is, in the case of cancer, of most formidable importance, both on account of the special difficulty of defining the disease, and because of the immense variations which may be caused by a very slight difference thus introduced into the calculation of mortality from such a rare complaint.

2. We must object altogether to the way in which Mr. Haviland tests the nature of the "geology" of districts which he examines with regard to the prevalence or otherwise of cancer, &c. He appears to take merely the *large* geological features of a district, and entirely to neglect the question of *drift*, gravel, &c. But the existence and nature of these overlying formations constitute *the one geological question* which, above all others, is important in reference to the spread of disease. It is upon them that the dwellings of the poor actually rest; and we have already, in the instance of cholera as investigated by Pettenkofer, and of phthisis as examined by Dr. Buchanan, the strongest reason for thinking that the influence of the superficial layer is capable of effecting great things; and even more strikingly in the instance afforded by the immunity of Limehouse schools—which stood on a little island of brick-earth in the midst of gravel—from the cholera in 1866, as mentioned in Mr. J. N. Radcliffe's report to the medical officer of the Privy Council.

And, finally, we have a general protest to make against Mr. Haviland's way of putting his case, in that he has not stated with anything like care enough the apparent exceptions to the rules which he endeavours to lay down; nor can he be said to have fairly stated the whole case in black and white. We must request the public not to assume the truth of his very ingenious views, and still more, not to put them into practice, until the subject has been much more thoroughly ventilated.

THE TRIAL OF JOHNSTONE *VERSUS* COTHAM.

THIS trial, which occupied the attention of the Chief Justice of the Queen's Bench and a special jury for four days, illustrates in a forcible way the danger of doing good to a person in spite of himself. The defendant was the incumbent of St. John's, Walworth, and the plaintiff, who had just been appointed chaplain of St. Mary's Hospital, had previously been his curate. The allegation of the plaintiff was that the defendant had caused him falsely to be imprisoned as a lunatic, and he claimed heavy damages for the injury he had sustained thereby. The defendant justified what he had done on the ground of the actual lunacy of the plaintiff at the time. The evidence adduced in support of this justification certainly proved conduct of so extraordinary a character on the part of Mr. Johnstone as to be capable of no reasonable excuse but the sad excuse of a disordered mind. It was clear that he had been for some days in a state of great excitement; that he believed there was a conspiracy against him, and that he was persecuted and pursued by Fenians; and that under these impressions he had threatened to commit, and had actually had on some occasions committed, acts of violence. His sister, who was his only known relation, was written to, but she did not come. Accordingly Mr. Cotham, actuated by good feeling, and doing with perfect honesty of intention what he thought best for the plaintiff, indeed necessary for his safety and that of others, signed the order for his removal, and had him removed at 2 o'clock in the morning to the Peckham Lunatic Asylum. There he was seen by Dr. Sibson, and by two of the Lunacy Commissioners, Dr. Nairne and Mr. Lutwidge, all of whom were convinced of his insanity, and their evidence was corroborated in the strongest manner by Dr. Armstrong and his medical assistant.

The prompt steps taken for the plaintiff's care and treatment were happily successful, and at the end of about a month he was allowed to leave the asylum under the care of his sister. Far, however, from being grateful for what had been done for him, and what in all probability had saved his reason, Mr. Johnstone immediately took steps for bringing an action for damages against Mr. Cotham; and had it not been for the careful, lucid, and most able charge of the Lord Chief Justice, it is more than probable, from the conduct of some of the jurymen during the trial, that he would not have brought his action in vain. However, the clear reasoning of the Lord Chief Justice had its weight, and the jury returned a verdict for the defendant, strongly disapproving at the same time the mode in which the removal to the asylum had been effected.

Mr. Cotham may felicitate himself on having escaped a severe penalty, in addition to the anxiety and expense which he has had, for having done a prompt act of benevolence; and may perhaps reflect how much more prudent it might have been, as the Chief Justice put it, "to have left this gentleman alone, and let him go on taking his morphine and his stimulants until he had got himself into a state of furious insanity, and then, in consequence of it, had lost his office, and had to be sent to a pauper lunatic asylum."

Had the verdict of the jury gone otherwise, the consequences would have been lamentable, for few persons would then have been found willing to undertake the responsibility of putting under restraint those labouring under delusions, accompanied with excitement and disposition to violence, until some fatal catastrophe has occurred. A person having delusions that he is pursued and persecuted is always more or less dangerous to others, for at any moment he may act as if his delusion was the truth, and do injury to his fancied enemies.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

LAST week we were unable to report the proceedings of this Association, on Thursday, the second day of session, further than to give an abstract of the presidential address. We now supply the omission. In the afternoon, at 2 P.M., Dr. Tuke opened a debate on the Criminal Responsibility of the Insane, and pointed out the insufficiency of the present legal test. A paper by Dr. Crisp, "On the Influence of a Moist Atmosphere on the Production of Phthisis," followed.

Dr. Lloyd Roberts then read a paper "On Imperforate Anus." William Henry C——, a stout, healthy-looking child, was born on the 11th of June, 1868. When washing him, the midwife noticed that the anus was absent. On examination, eleven hours after its birth, Dr. Roberts did not find the vestige of an anal orifice. There was, moreover, no discoloration nor elevation of the skin; the raphé of the perineum, however, was more prominent than normal. On separating the buttocks, there was not even a pucker in the situation where the rectum would naturally have existed. The abdomen was tense and flatulent, and the child cried and appeared in pain. In the presence of Messrs. Runcorn, Kershaw, and Barnish, Dr. Roberts made an incision with a scalpel in the mesian line of the perineum, in the position where he thought the rectum would be situated. Dividing the skin and the subcutaneous areolar tissue in the direction of the coccyx, he continued the incision for about an inch and a half upwards, into the pelvis. Guided by a sense of fluctuation, a large curved trocar and canula was plunged into the fluctuating spot. On withdrawing the trocar, meconium, accompanied with a little blood,

freely flowed through the canula. This was allowed to pass until it ceased to flow, upon which the canula was withdrawn, and the opening into the gut enlarged. Dr. Roberts passed a bistoury into the bowel through the previous incision, and commenced to enlarge it, directing the blade towards the sacrum. When he had done this, more meconium passed through the wound. A No. 10 elastic catheter was passed, and subsequently a No. 12. Afterwards the parts were cleared, and the bougie withdrawn. In the morning, June 12th, the child had had a good night's rest, meconium, with fæcal matter, had passed through the artificial anus, and it had made water. A No. 12 bougie was introduced, and retained for several minutes in the wound; and on its withdrawal a copious motion was voided. The child continued well in every way until 9 A.M. on June 20th, when, although fæcal matter freely stained the bougie, no motion passed after its withdrawal. The same thing had occurred on the previous day. The abdomen was very much distended, and looked blue. The child appeared feverish, restless, and uneasy. The bougie was again introduced, and retained a little longer. On its introduction it appeared to pass through hardened fæces; and on its withdrawal it was marked by fæcal matter. A free dose of castor-oil and a warm bath relieved the child. From this day he had not had a bad symptom. Dr. Roberts continued to pass the bougie from time to time. The mother stated some time ago that she had perceived, on his straining very hard to have his bowels moved, that two or three drops at a time of something like fæcal matter passed through the urethra, and that except under these circumstances his water was always perfectly clear. She states to-day (November 30th) that she has noticed this circumstance half a dozen times since he was born. He is now five months and a half old, is thriving, and getting an unusually fat, big boy. Dr. Roberts had examined the parts at this time, and the artificial anus appeared to be firmly sound and healed. On separating the opening, which was then circular, it looked like a sulcus, with its edges continuous with the external integument. The child seemed to have control over his fæces; and his bowels were moved sometimes daily, and sometimes every other day. Dr. Roberts believed the success of this case was largely due to the timely operation performed before the child had begun to vomit, or, as is too commonly the case, had been worried by purgative medicines.

Dr. Maund read a paper "On Strychnia in Diphtheritic Paralysis." The cases of secondary nerve affections following diphtheria were very frequent and peculiar. He believed the frequency of them to be in inverse ratio to the severity of the primary attack. He had never met with more than one case following a severe primary attack, but he had had many cases of secondary paralytic affection where the attack of diphtheria was so slight as to have escaped notice. The case described in detail exemplified this. Strychnia has usually been found most beneficial, but he confined his remarks chiefly to the one case where the effect of this drug was most remarkable. A lady, aged thirty-three, was seized suddenly with most intense frontal headache, and febrile symptoms, which were greatly aggravated every afternoon. After a fortnight her sight became dim, and her taste was lost, except for sweet things. She stated that she was in her usual health till the day before he saw her, when the frontal pain came on. Very close inquiry elicited that she had a "sore-throat" three weeks before the attack. Her husband likened the appearance of the tonsils to the "whitish mould which comes on the top of soup which had been kept too long." This cleared up the case. In the course of the next four weeks she nearly lost her sight and taste; deglutition was most difficult, fluids returning through her nose; sensation and motion were almost annihilated in the lower half of the body, and to a less degree in the hands and arms. In the dark she was powerless to move her hands; if she clasped them in the dark she could not separate them till a light was brought. Strychnia was given in increasing doses, but without very marked effect till the dose reached one-tenth of a grain four times daily. The effect was then remarkable. Before taking her dose of strychnia one leg was quite helpless; a depressed and anxious countenance; the sight so dim that she could not discern the largest print on a posting-bill; her voice highly nasal, and she was almost unable to swallow. Twenty minutes after her dose her countenance began to brighten, the paper on the wall (which previously appeared of a drab colour) began to show its pattern, which rapidly became clearer, till in half an hour she could perfectly discern both its form and colour; the voice lost its nasal twang, and deglutition became easy; the taste was restored, though much less perfectly, and the different functions were performed. In an hour the sight began to become dim, and she returned to her previous condition, and waited with longing for the next dose of strychnia. At the end of three months she had regained all her faculties, with the exception of the use of the legs. She could walk from room to room when it was light, but was still powerless in the dark. It was ten months before she was restored to health.

A paper was then read by Walter Whitehead, F.R.C.S., Surgeon to St. Mary's Hospital, Manchester, "On the Physiological Effects of Chloroform." The theory that all anæsthetics owe their value to the property of preventing oxygen uniting with the blood is not beyond question. The effects of chloroform and ether would be ill described by the symptoms of asphyxia. Those agents which have asphyxiating properties excite and convulse muscular structures, causing contraction. Chloroform and ether paralyse muscle, and give rise to relaxation; the one producing contraction, the other dilatation of the vessels. Chloroform and ether are capable of interrupting the communication of sensibility from the periphery to the nervous centres without compromising the general sensibility of the brain. Whether the nervous agent be electricity or not, there was one property common to them both which bore particularly upon his subject, and that was, the necessity to both of a continuous, insulated conductor. The beautiful idea of Du Bois-Reymond, "that the electro-motive molecules of nerves are minute centres of chemical action, all arranged regularly so as to turn homologous sides the same way, mutually determining their position of equilibrium, and controlling their deviation from it; that in such a system, though electricity were the connecting link of the whole, and the means of transmitting power through it, the rate of transmission would be independent of that of electricity, and might indeed be what the rate of transmission of the nervous agent really is,"—this view has at least the recommendation of being in harmony with all the known laws of nature. Whatever view is taken with respect to the nervous agent, the contiguous molecules composing the axis-cylinder of the nerve must always have a certain relation to one another; remove a single one, and an entire chain of communication is destroyed. Chloroform when inhaled permeates every structure of the body, and consequently must insinuate itself between the constituent molecules of the nervous substance, and thus interfere with their mutual relation, and upon which the fulfilment of their function certainly depends. Chloroform is proved to be a bad conductor of electricity, therefore it is to a certain extent an insulator, and if each molecule be a minute centre of chemical action, insulation would have the effect of exhausting the intrinsic value of each electricity-producing point, and collectively of destroying the utility of the entire nerve as a means of communicating motion or sensation.

Dr. Bogg's paper "On Fracture of the Sternum" was based on a case in which that injury was due to violent muscular contraction. The patient was engaged at the time in lifting a heavy cask. A case is mentioned by Chaussier where fracture of the sternum was caused by violent muscular contraction during labour. Dr. Bogg's argument was, that if, as Sir Astley Cooper relates, cases have occurred where the humerus and tibia had been fractured by violent muscular contraction, there was no reason why other bones should be exempt from all liability to similar injury. It is a pity that injuries of the sternum are so briefly handled in the works of English surgical authors, the chief information on the subject being contained in the Jacksonian Prize Essays for 1809, 1831, and 1841.

Correspondence.

"Audi alteram partem."

LONGEVITY.

To the Editor of THE LANCET.

SIR,—Dr. Allbutt's communication has added fresh interest to the question of Longevity, and I am glad to have an opportunity of discussing the subject with so old a friend and so polite an antagonist.

Dr. Allbutt first questions the accuracy of the ages which are assigned to the standard examples, and considers that "there is as much evidence for the reputed ages of Jacob and Methuselah, as for those of Jenkins, Parr, Agnes Skynner,

and the rest. Regarding the evidence we have concerning Methuselah, it is either considerably less than that relating to Old Parr, or it is immeasurably more, according to the view we take of Methuselah's historian. Avoiding Methuselah as likely to lead to incongruous, not to say odious, comparisons, and confining ourselves to profane history, we cannot reasonably doubt that Henry Jenkins and Old Parr long outlived the ordinary term of humanity, and both probably long survived their century; but it would be too much to suppose that the number of their years has been correctly recorded. With regard to recent cases the evidence is much more complete. It is scarcely possible to doubt, notwithstanding all that the late Sir G. Cornewall Lewis urged to the contrary, that human life occasionally exceeds the limit of 100 years, and Dr. Allbutt does not dispute this proposition. An old seaman is still alive at Newcastle, who, as I am informed by Dr. Ellis, is believed to be 107 years old; and there recently died at Hereford a man whose reputed age was 109. He lived with a daughter, aged 70, and complained of her undutiful conduct. I will say no more at present about these two cases, as I entertain the hope of being able to adduce detailed evidence respecting them. With regard to persons who thus outlive their contemporaries, the relation in which they stand to their descendants furnishes a means of checking their statements; while, unless they are purposely untruthful, their early recollections of historical events may also serve as a guide. However, I do not constitute myself the champion of longevity, but merely wish to regard the subject from a pathological point of view. Here Dr. Allbutt and myself are more widely at variance.

I stated that few persons die of simple old age, but from diseases which may be regarded as accidental rather than necessary. Dr. Allbutt is of opinion that, "setting apart accidents from without, all men die of old age."

It is quite possible that such a large interpretation may be given to the phrase "accidents from without," that Dr. Allbutt and myself may prove to be of almost the same way of thinking. The bearing of Dr. Allbutt's sentence, like that of the oracular Bunsby, lies in its application. If, as the result of "accidents from without," Dr. Allbutt includes, as I do, the majority of the diseases from which we suffer, he and I are much of the same opinion. If he considers "accidents from without" as exceptional causes of death, and holds that the majority of human beings reach the term for which they were constructed to last, and perish eventually from the simple effect of time upon their tissues, he holds an opinion from which I dissent.

We may perhaps allow, using the language of paradox, that all persons who die of disease which is purely hereditary or innate, die of age, though their years may be few. They have become the victims of change which only required time for its development. The majority of mankind, however, inherit, not disease, but a liability to disease, and die at last because they are vulnerable, and circumstances adverse. They die from accident as much as if their bones had been broken, or their necks dislocated. This conclusion can scarcely fail to force itself upon the mind of anyone who has had much experience in post-mortem examination. Most human beings die before they are in any general sense worn out. Causes, often distinctly traceable from without, have set up in certain organs processes which break some link in the chain of vital action. This may, and often does, happen, while the general structure of the body is not appreciably the worse for wear. When a child dies of scarlatina, or a robust labourer of typhus, is it possible by any abuse of language to describe them as dying of age? All epidemic and all contagious diseases, including syphilis with its thousand consequences, are not necessary, but accidental, causes of death. How large a proportion of humanity do these kill. Further, how many persons fall victims to the consequences, perhaps remote, but none the less certain, of unhealthy pursuits and injurious habits. The Sheffield workman who dies at thirty of grinder's rot, the painter who gets granular degeneration of the kidney from the absorption of lead, the abuser of alcohol, who has before him a choice of evils,—all these are the victims of accident, not of age. The same may be said of all in whom fatal changes are produced by the effects of weather and climate. How many persons dead of bronchitis, pneumonia, or even of phthisis, would still be alive were it not that at a certain time they were exposed to influences which, to use a common phrase, "gave them cold." How many have died of the remote sequelæ of an attack of rheumatic fever, which under different external circumstances would never have occurred. In all these cases death has resulted from external causes as much as if the victims had been crushed in the recent earthquake; and I might protract the list almost indefinitely. The further we search into the causes of diseases, the more examples we find of morbid changes which are traceable to influences acting from without. Having excluded them all, we may say with Dr. Allbutt, "the rest die of age."

But there are progressive changes which take place in the human tissues, which, independently of any external influence, lead to the cessation of life, after a duration, not always the same, but fixed within certain limits. The nature of these changes needs further inquiry, though we are not entirely ignorant of them. Arteries become atheromatous; muscles waste and degenerate; nervous matter is replaced by connective tissue. But though these changes are of general occurrence, we cannot at present assert that all or any of them are universal. With regard to atheroma in particular, there is so much variation in the time of its appearance that one is disposed to doubt whether it is inseparable from any age. I have found atheroma in the arteries of young children, and I have examined the bodies of old people who have been nearly free from it. In scrutinising the bodies of very aged persons, I should hope to obtain evidence as to the inevitable changes which age produces.

I will conclude by wishing that Dr. Allbutt himself may protract his career of usefulness and distinction until at last he becomes a conspicuous example of longevity; and that he may not, as happens to most of us, be called upon to pay his debt before it is due.

I am, Sir, your obedient servant,

Chesterfield-street, Mayfair, Nov. 1868. W. H. DICKINSON.

To the Editor of THE LANCET.

SIR,—A letter under the above head, by Dr. Dickinson, in THE LANCET of Oct. 31st, begins thus:—"*The Times* of the 21st instant records the death of a labouring man, named Richard Purser, who, according to apparently sufficient evidence, had attained the age of 112 years." Dr. Dickinson then alludes to the well-known stories of Jenkins and Old Parr. Now, with regard to Purser's case, it breaks down at the very outset, for the writer of the letter to *The Times*, with an amusing simplicity, confesses that Purser's baptismal certificate is not to be found. In other words, the only authentic proof of the man's great age is wanting. The tales that very old people are fond of telling about their childish recollections are quite worthless as evidence. The remembrance of things so long gone by becomes sadly confused, and the old narrators are sure to blend together occurrences they have heard frequently and vividly described with scenes which have passed under their own notice. To some persons, of strong imaginative and perceptive powers, a scene well described becomes at once visible to their "mind's eye," and when, long afterwards, recalled, it appears as vivid and as distinct as if they had actually witnessed it. Individuals differ widely in this respect; to one an occurrence he has heard related remains with him as a mere dry fact; it can be recalled as such, but not as a picture. I may quote my own experience as an illustration. My father had a very dramatic and picturesque way of telling a story. A scene witnessed by him in early life arose before me, while he described it, with such distinctness that I saw it all. At this moment I can call up many of his descriptions, and see them again as clearly as I saw them when he first sketched them to me in my boyhood, and sometimes it requires a little effort of my judgment to convince myself that I could not possibly have been present at the scenes I recall; they took place, perhaps, before I was born.

Now, an uneducated person, who knows nothing of historical dates, has not this check upon his fancy. He relates something which has been strongly impressed upon his memory; in garrulous old age he tells the same story over and over again, and each time he tells it the things seem more real, and at last he represents himself as having been an eye-witness to occurrences, or an actor in them, although they took place before he existed.

It is in this way, I think, that we must dispose of the stock story of Jenkins, and the arrows for Flodden-field, and of some of Parr's reminiscences. In both these cases the only certain proof of age, a register of birth or baptism, was wanting. Jenkins, if his story had been true, must have been born in the reign of Richard III.; Parr in that of Henry VII.

Now, it was not until 1538, after the dissolution of the monasteries under Henry VIII., that an order was issued to

register in each parish baptisms, marriages, and burials. No doubt before that time the births of noble and important persons were recorded in private chronicles or public documents, but among the illiterate yeomen and husbandmen no record of this kind could have been made.

There has lately been a good deal of discussion on "Longevity" in *Notes and Queries*, and those interested in the subject will there find some instructive facts. Dr. Dickinson's learning, and general character as a scientific man, must give weight to any statements he may publish, and I have therefore trespassed on your indulgence, I fear to an unwarrantable length, in an attempt to point out the fallacy of some of his remarks.

I am, Sir, your obedient servant,

Portman-square, Nov. 7th, 1868. J. DIXON.

*** We regret that want of space has prevented earlier insertion of the above letters.

NEUROTOMY IN SYMPATHETIC OPHTHALMIA.

To the Editor of THE LANCET.

SIR,—In answer to Mr. Solomon's note on my case of ciliary neurotomy for sympathetic ophthalmia, I regret having overlooked his valuable contributions to ophthalmology, citing the opinions of Professor von Graefe to the exclusion of his own.

I am, Sir, your obedient servant,

Devonshire-street, Dec. 1868. J. Z. LAURENCE.

To the Editor of THE LANCET.

SIR,—I read in your impression of Nov. 14th Mr. Laurence's case of ciliary neurotomy for sympathetic ophthalmia. I have also read Mr. Solomon's remarks thereon, in which he disputes the sympathetic character of the inflammation. In this criticism I cannot agree with Mr. Solomon. The subject is one to which I have given much attention for many years, and, though Mr. Laurence's remarks are in a very condensed form, I feel convinced that the case he describes was one of sympathetic inflammation in an early stage, and that it would not have been safe to have dispensed with surgical interference.

I am, Sir, your obedient servant,

Lower Seymour-street, Dec. 7th, 1868. R. TAYLOR.

BILIARY CALCULUS.

To the Editor of THE LANCET.

SIR,—The accompanying engraving represents a biliary calculus (the exact size as shown) passed by a woman, aged forty-five, without any aggravation of the usual signs of passing a gall-stone.

It is the largest I have seen or heard of, and I would feel obliged if you or any of your readers could inform me if it has been surpassed. It measures 3⅜in. in length, 1¼in. in widest diameter, and weighs 1 oz. 6 drms.

I would feel obliged if you could insert the sketch in your next issue. I am, Sir, your obedient servant,

Barnsley, Nov., 1868. J. BLACKBURN.

THE South Staffordshire General Hospital, Wolverhampton, has received a legacy of £100, and £77 12s., one-fifth of the residuary estate, under the will of J. B. Whitehouse, Esq.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

DURING the past week some matters of medical interest have been brought to a definite issue. At the annual meeting of the Birmingham Lying-in Hospital, the governors adopted the report to which we referred last week. As it was considered by many inexpedient to dispose of the whole of the hospital building, the committee were requested to consider the propriety of appropriating a portion of it for the purposes of the Lying-in Charity, in order to preserve, publicly, the identity of the institution. The election of all future honorary medical officers will be by voting papers, similar to those used at the Birmingham General Hospital.

On Wednesday last it was decided to establish a Training Institution for Nurses in Birmingham, in connexion with the General, Queen's, and Children's Hospitals. The hospital medical officers have agreed in condemning the existing system of nursing as very inefficient, and in thinking that the formation of a training school would be the best means of ensuring a supply of good nurses for the charities of the town, as well as for the public. The probationers will be admitted to the wards of the principal hospitals, and every facility afforded for their instruction; trained nurses will be supplied from the house, which will in time, no doubt, as in other towns, provide all the nurses for the different charities. It is proposed to vest the management of the Training Institution in a general committee of ladies and gentlemen, including medical men from the hospitals; while a house committee of seven ladies will arrange the details of the home. A provisional committee was appointed, and a towns meeting will shortly be held to formally start the undertaking, which is to be connected in no way with any particular religious sect.

At a meeting of the committee of election of the Birmingham Children's Hospital, held on Monday last, Mr. George Elkington, jun., was elected surgeon to the charity, vice Mr. P. Goodall, appointed surgeon to the General Hospital. There were three candidates—Mr. Elkington, Mr. W. Thomas, and Mr. W. S. Mann. Of the thirty-seven members of the committee present, twenty-seven voted for the successful candidate. Mr. Elkington was the junior surgeon on the staff of the General Dispensary, when the governors refused to grant the moderate request of the medical officers for an honorarium, and thus compelled the wholesale resignation of the honorary staff. Mr. Elkington on that occasion acted thoroughly in concert with his colleagues, although as the junior officer he could least afford to resign. It is stated that this course of action was somewhat ungenerously urged against his election by one member of the committee on Monday last, but it is gratifying that so large a majority showed their confidence in Mr. Elkington.

PARISIAN MEDICAL INTELLIGENCE.

(FROM OUR OWN CORRESPONDENT.)

THE operation of thoracocentesis is now universally employed as a most valuable resource in certain well-known medical cases. The operation is usually a safe one; yet it is sometimes attended by certain inconveniences which attach to the manner in which it is performed. M. Blachey, in a recent communication to the Société Médicale des Hôpitaux de Paris, points out the advantages which he has obtained by the employment of a very fine trocar, which he calls the capillary trocar. The puncture performed under such circumstances wonderfully facilitated the operation in six cases which were related to the Society. The operation is much less painful, and may be repeated if necessary. M. Blachey is confident that thoracocentesis performed on such conditions, and attended by the administration of chloroform, is a much better method of treatment in cases of serous effusion than the classical system of purging, blistering, and giving diuretics.

It is a question, and a very interesting one, whether there exists any connexion between rheumatism and gonorrhœa, or whether, in cases where both diseases co-exist, the fact is not due to a mere coincidence. This question was discussed some time ago at the Société Médicale des Hôpitaux de Paris, and,

as might be expected, there was much difference of opinion. The majority of French physicians are, however, disposed to admit a correlation between rheumatism and gonorrhœa. M. Fournier, of the Lock Hospital of Paris, and one of Ricord's most distinguished pupils, is a warm upholder of the doctrine alluded to, and has grounded upon it a very interesting paper, in which he endeavours to show the relation of cause and effect which exists between sciatica and gonorrhœa. I extract the following conclusions, in which the author has summed up the chief points of his researches:—1. Sciatica is seen to figure among the number of manifestations of gonorrhœal rheumatism, or rather urethral rheumatism. 2. There are cases in which sciatica has shown itself on repeated occasions during the course of several attacks of consecutive urethral rheumatism. 3. In other cases, however, of similar attacks of rheumatism, sciatica seemed to alternate with other manifestations of rheumatism of a like nature, but occupying a different situation. 4. From a symptomatological point of view, sciatica which follows upon gonorrhœa differs in certain respects from ordinary sciatica.

M. Fournier also mentions that this description of the disease is far more amenable to treatment than the other. Indeed, it may be said that the malady is easily curable. Cupping with the scarifier is the best means of obtaining a cure. It invariably procures relief on the instant, and seldom requires to be employed a second time. Some narcotic application then suffices to dispel the pain completely.

M. Fournier, in connexion with this subject, calls attention to a curious lesion which sometimes occurs in gonorrhœal rheumatism, and which may be mistaken for sciatica; it is an acute *hygroma of the ischiatic bursa*, attended by great pain. The pain is necessarily seated in a situation close to the emergence of the sciatic nerve, and its manifestations simulate a case of neuralgia. Hidden beneath, the tumour escapes attention, and has doubtless often been mistaken for partial sciatica.

THE ROYAL COLLEGE OF SURGEONS.

WE understand that, at the meeting of the Council on Thursday evening, a motion of Mr. Le Gros Clark, to appoint special examiners in physiology at the primary examinations, was lost by a majority of two. We shall return to the subject next week.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members having passed their final examinations for the fellowship on the 2nd inst., were, at a meeting of the Council held on the 10th inst., duly admitted Fellows of the College:—

Arnott, Henry, Nottingham-place, W.
Best, Alexander V., M.D., H.M. Indian Army.
Brookhouse, Joseph Orps, M.D., Nottingham.
Coleman, Alfred, L.R.C.P. Lond., Old Burlington-street.
Davy, Richard, M.D., Welbeck-street, W.
Eastes, Georges, M.B. and L.R.C.P. Lond., Trinity-square, S.E.
Edis, Frederick Pooley, M.R., Langham Chambers, W.
Galton, Edmund Hooper, L.S.A., Brixton-hill, Surrey.
Harding, Thomas Massey, L.R.C.P. Lond., Euston-road.
Humphreys, Frederick William, L.R.C.P. Lond., Trinity-square, E.C.
Ingle, Robert Nicholas, M.D., Pendleton, Manchester.
Lee, Frederick Fawson, M.B., Salisbury.
Pearse, George E. Legge, L.S.A., St. George's-square, S.W.
Thornton, William Henry, M.D., Dewsbury.
Wood, Miles Astman, L.R.C.P. Lond., Ledbury.

The following members of the College, having passed their examinations, were admitted Licentiates in Midwifery at a Board of Examiners held on the 9th inst.:—

Adams, Edward J., L.S.A., Bethnal Green.
Ainley, Daniel, Halifax, Yorkshire.
Chiappini, A. L., M.D., Cape of Good Hope.
Godson, Clement, Barnet, Herts.
Price, William, Cardiff, South Wales.
Winckworth, C. T., L.S.A., Horsham, Sussex.

Three of the nine candidates admitted to examination failed, and were referred for three months.

UNIVERSITY OF LONDON.—The following is a list of candidates who passed the recent B.S. examination:—

PASS EXAMINATION.

Anderson, Tempest, B.Sc., University College.
Langmore, John Wreford, University College.
Poore, George Vivian, University College.
Ridge, John James, B.A., B.Sc., St. Thomas's Hospital.

EXAMINATION FOR HONOURS.—FIRST CLASS.

Ridge, John James (Scholarship and Gold Medal), St. Thomas's Hospital.
Poore, George Vivian (Gold Medal), University College.
Anderson, Tempest, University College.
Langmore, John Wreford, University College.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Dec. 3rd:—

Brown, Richard Edwin, Holborn-hill.
Foster, Joseph, Sonning, Berks.
Hubert, William Henry, Markyate-street, Herts.
Nicolson, P. J. S. Fraser, Cheltenham.
Pollard, Frederick, Taunton.

The following gentlemen also on the same day passed their first examination:—

S. W. Fitt, A. A Kidger, and W. Sheard, King's College; W. Naughtin, Charing-cross Hospital; R. H. Pritchard and F. M. Wallis, Guy's Hospital; F. H. Turner, St. Bartholomew's Hospital.

THE "Pall Mall Gazette" states that a few cases of scarlatina have occurred amongst the cadets at the Royal Military Academy at Woolwich; and although they have not been of a serious character, it has been thought advisable to recommend the closing of the Academy on the 12th inst.

THE second anniversary dinner in aid of the funds of the French Hospital and Dispensary, Lisle-street, Leicester-square, will take place on Tuesday next at the Hanover-square Rooms.

DR. TRENCH has suggested to the Liverpool Corporation that they would be doing a greater sanitary work than they have hitherto accomplished if they would fill up the cellars which many of the poorer classes now inhabit, so as to prevent them from any longer living underground, where it is quite impossible they can be healthy. The Corporation has now ready for occupation part of the buildings erected for the accommodation of the working classes of Liverpool.

SEVENTEEN deaths from small-pox were recorded last week in the borough of Sheffield; of these, ten were certified as of unvaccinated persons.

WE understand that, at the instance of Mr. Bianchi, the medical officer of health of St. Saviour's, proceedings have been taken in several instances, under the Artisans and Labourers' Dwellings Act, where houses have been found unfit for human habitation.

ARTS EXAMINATION.—The preliminary examination in arts for the diplomas of Fellow and Member of the Royal College of Surgeons of England will commence on Tuesday next, Dec. 15th, and will last three days. Upwards of 200 candidates, it is stated, have entered for it, a number in excess of the corresponding examination in 1867.

THE ENDOTOSCOPE.—This instrument is contrived for the study of the movements of the membrana tympani. These movements, according as they more or less deviate from the physiological standard, will indicate any irregularity in the middle, and even internal ear. The ordinary and healthy oscillations of the membrane are, as is well known, excited by deglutition, expiration, screaming, blows, efforts, and the contraction of some of the muscles connected with the ossicula auditûs. Accidental oscillations are, on the other hand, produced by insufflation of air through the Eustachian tube, and the catheterism of the same. Now, the instrument in question is simply of a V shape, one stem of which enters the meatus externus, whilst the other tapers towards its extremity. At the bend is some coloured fluid, which rises and falls according to the oscillations of the membrana tympani. At least, this instrument has the merit of simplicity.

SECONDARY EFFECTS OF THE VIPER'S VENOM.—Messrs. Chéron and Goujon communicated to the Academy of Sciences of Paris, at a late meeting, a very interesting experiment. The ear of a healthy rabbit was subjected to the bite of a viper, and the former died thirty hours afterwards. From the œdematous soft parts around the bitten spot as much as from two ounces to two ounces and a half of serum was easily obtained. It emitted much fetor, was coloured red by blood-discs, and contained a few white globules. It did not coagulate by nitric acid or heat. About half a drachm of this fluid was injected under the skin of another healthy rabbit.

One hour and a half afterwards the animal was found to present a cold surface; it walked lame, and half an hour afterwards it died, during severe convulsions. The result of this experiment would show some analogy between venom and virus. It is a pity the gentlemen above named did not inject under the skin of a healthy animal the blood of the first rabbit, and especially that of the second; the result would have shown in what ratio the mass of the blood becomes contaminated. Nor should future experimentalists omit, under the same circumstances, to go on inoculating to the fourth or fifth generation, in order to find out whether the fluids retain the same contaminating power, or whether this power diminishes by successive transmissions.

CENTRAL PERFORATION OF THE PERINEUM: PASSAGE OF THE WHOLE FŒTUS THROUGH THE RENT.—Professor Stolz, of Strasburg, has communicated this case to the Surgical Society of Paris. So rare are these cases that the Professor has seen only one example during a practice of forty years. The patient, aged twenty-seven, had severe pains, and when the head was on the point of passing the vulva, it retracted. A pupil midwife was supporting the perineum, when the head suddenly passed through the latter, and so rapidly that the whole child was born through the abnormal aperture. The child measured about seventeen inches, and weighed almost seven pounds. The rent was two and a half inches long. The fourchette was entire, and the internal sphincter also. The constrictor vaginæ was torn posteriorly, and likewise the inferior third of the vagina, with the corresponding recto-vaginal parietes. Some gangrene occurred, but on the twelfth day the wound looked well, and was contracting. On the thirtieth day the wound was getting smaller; the woman left the hospital, and was not heard of until one year after the accident (the summer of 1865), when she came to complain of procidentia uteri. The aperture was still visible, and somewhat occluded by the neck of the uterus. At that period the patient again disappeared, and the account of the case closes thus unsatisfactorily. How the woman was allowed to leave the hospital with the rent gaping, when it might have been so easily sewn up, can hardly be understood, unless she positively refused an operation. This supposition seems near the truth, as it is not said how, when she came a year afterwards, the hole was not proposed to be closed by sutures, and the uterus replaced.

UNIVERSITY OF EDINBURGH: BAXTER SCHOLARSHIPS IN PHYSICAL AND NATURAL SCIENCES.—The Senatus has awarded the Baxter Physical Science Scholarship, of the annual value of £60, tenable for two years, to David Gow Black, M.A. and B.Sc. Edin.; and the Baxter Natural Science Scholarship, of the annual value of £60, tenable for two years, to Thomas Lauder Brunton, M.D. and B.Sc. Edin., and gold medalist 1866. The scholarships are held under the condition that the holders shall take the degree of Doctor of Science in the second year of their tenure of them.

THE PARIS SCHOOL FOR THE HIGHER BRANCHES OF PHYSICAL AND NATURAL SCIENCES.—This school, which has lately been founded by the French Government for the cultivation of the higher branches of science, is intended for men who may be found sufficiently qualified to carry on investigations and researches. Every facility and assistance will be given to the pupils by the eminent professors attached to each section of the school. The laboratories are situated either at the School of Medicine at the Collège de France, at the Faculty of Sciences, or at the Natural History Museum. The *élite* of the Paris professors have been appointed to the different sections, which comprise physics, chemistry, mineralogy, geology, botany, anatomical and physiological zoology, histology, and experimental physiology.

BETHNAL GREEN BOARD OF GUARDIANS. — At a recent meeting of the above guardians Mr. Burrows, who three months ago was appointed to procure the enforcement of vaccination, read his report. The registrars, by recent legislation, have to supply half-yearly to the guardians a list of all children born, and whose vaccination has not been registered. He had procured out of about 600 cases the successful vaccination of 121, and 115 had refused. Mr. Burrows, on the motion of Mr. Haine, was re-appointed for another three months, his salary to be £15 for that period.

VOLTOLINI'S LARYNGOSCOPY WITHOUT MIRROR.—This physician has published an article in the *Berlin. Med. Woch.*, wherein he shows that the epiglottis and the interior of the thyroid body can be seen and acted upon, without mirror, in the following manner:—Do *not* press down the tongue with a spatula, which measure is likely to obscure the parts, but hold the tongue firmly out of the mouth; push up the thyroid cartilage externally with the fingers of the hand which keeps the tongue steady, and with a little appropriate instrument press the epiglottis forwards. The author maintains that in this wise he saw the thyroid cartilage, and thinks that, with a proper patient, the interior of the thyroid body could be explored. Dr. Voltolini alludes to a case of a gentleman, aged fifty-six, in which Dr. Middeldorpf, who had requested the author's assistance, succeeded in removing a polypus, the size of half a pigeon's egg, from the walls of the pharynx, by means of the galvanic wire.

THE STAINS OF IODINE. — Add a few drops of liquid carbolic acid to the iodine tincture, and the latter will not stain. Dr. Boga, of the Indian Service, states that the carbolic acid, besides the above-mentioned property, renders the efficacy of tincture of iodine more certain. Whenever injections of the latter are indicated, he advises the following formula:—Alcoholic tincture of iodine, one ounce (this proportion is mentioned by the *France Médicale*, but there is evidently a mistake,—instead of "30 grammes" it should probably be "3 grammes,"—viz., 45 drops); pure liquid carbolic acid, six drops; glycerine, one ounce; distilled water, five ounces. This is said to be far superior to tar-water in blenorrhœa and leucorrhœa.

DEATH OF PROFESSOR PALAMIDESSI.—On the 27th ult. this highly-gifted surgeon died in Florence, after five months' severe illness, having hardly reached his fiftieth year. As Professor of Surgery at the Hospital of Santa Maria Nuova, and as a brilliant operator, the deceased was a great favourite among the students, and highly valued by the profession. M. Palamidessi's funeral was attended by a great concourse of friends and admirers, and the most eloquent and touching discourses were delivered over his grave.

Obituary.

CHARLES COWAN, M.D.
(OF READING).

WE regret to announce the death of Dr. Cowan, of Reading, at the age of sixty-two. The deceased gentleman was a graduate of the Universities of Edinburgh and Paris, Senior Physician to the Royal Berkshire Hospital, and Consulting Physician to the Reading Dispensary. He was well known in his day for the part he actively took in religious discussions, and by many literary productions. He translated Louis on Phthisis in 1835, and between that date and 1840 wrote several pamphlets and reports on quackery. He also contributed to the provincial Transactions papers on the Physiology of the Brain as the Organ of the Mind, the Practice of the Reading Dispensary, &c. Some time since he met with a carriage accident, and never seemed to have recovered from its effects. The state of his health compelled Dr. Cowan to have a holiday. Accordingly he visited the Isle of Wight, and the result was that his health was greatly improved. By a singular coincidence, immediately upon his return from his tour, a report was widely circulated that the doctor was dead. The rumour was soon contradicted, and the deceased himself laughed at the report when speaking of it to a friend. Within a very short time, however, his health again was worse, but for a time he was thought to be in no danger. Some two or three weeks since, he gradually got worse. It was soon seen that very little hope could be entertained, and his friends were summoned to see him. His weakness, together with the state of the brain, and congestion of the lungs, told them that the report was too true. After rallying a little, these fears were confirmed, and on Sunday night, about eight o'clock, he breathed his last. The deceased has left a wife and five children behind.

MEDICAL APPOINTMENTS.

ALDRIDGE, Mr. C., L.R.C.P.L., has been appointed Assistant Medical Officer to the Female Department of the West Riding Lunatic Asylum at Wakefield, vice S. Mitchell, M.D., promoted Deputy Superintendent.

ANDERSON, M'C., M.D., has been appointed an extra Physician to the Dispensary of the Royal Infirmary, Glasgow.

BARNARD, Mr. H., has been appointed Dispenser to the Rochester, Chatham, and Strood Dispensary, vice Adams, resigned.

BARTER, C. S., M.R., F.R.C.S., has been appointed Surgeon to St. Catherine's Hospital, Bath, vice T. Barrett, M.D., F.R.C.S., deceased.

DAVIES, W. R., M.R.C.S.E., has been appointed Senior House-Surgeon to the Liverpool Southern Hospital, vice A. Trubshaw, M.R.C.S.E., resigned.

ELKINGTON, G., jun., M.R.C.S.E., has been appointed a Surgeon to the Birmingham and Midland Free Hospital for Sick Children, vice W. P. Goodall, M.R.C.S.E., resigned.

GALBRAITH, F., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the United Parishes of Lochgoilhead and Kilmorich, Argyleshire, vice Mr. W. Robertson, L.R.C.S.Ed., deceased.

HILL, P. E., M.R.C.S.E., L.S.A.L., has been appointed Certifying Surgeon to the Colonial Assurance Corporation.

HODGES, F. H., L.R.C.P.Ed., has been appointed one of the Resident Physicians to the Edinburgh Royal Infirmary, vice T. E. King, M.D., resigned.

HOYLE, R. C., L.R.C.P., has been appointed Public Vaccinator for the Buckland Brewer District of the Bideford Union.

HYDE, Mr. W. D., has been appointed Assistant-Demonstrator of Anatomy at Charing-cross Hospital School of Medicine.

INGLIS, Mr. W. W., has been appointed Medical Registrar to St. Thomas's Hospital.

KIERNAN, Dr. J., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Killoughey Dispensary District of the Tullamore Union, King's County, vice J. W. O'Malley, L.K.Q.C.P.I., resigned.

LINTON, J., M.D., has been appointed Medical Officer to the Parochial Board of Canongate, Edinburgh, vice H. D. Alexander, M.D., deceased.

LITTLE, W., L.R.C.P.Ed., has been appointed Junior House-Surgeon to the Liverpool Southern Hospital, vice Davies, promoted to Senior House-Surgeon.

LOVE, J., L.R.C.P.Ed., has been appointed Medical Officer for the Killygordon Dispensary District of the Stranorlar Union, Co. Donegal.

MACKEN, J., M.D., has been appointed Assistant Resident Medical Officer to the London Fever Hospital, Liverpool-road, vice Alex. Collie, M.D., resigned.

MACLAREN, J. D., M.D., has been appointed Fever Physician to the Royal Infirmary, Glasgow.

PATERSON, Dr., has been appointed an extra Surgeon to the Dispensary of the Royal Infirmary, Glasgow.

PEARCE, Mr. W. H., has been appointed Assistant-Demonstrator of Anatomy at Charing-cross Hospital School of Medicine.

SALMON, Deputy Inspector-Gen. J., M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in her Majesty Navy.

SMART, Dr., has been appointed an extra Surgeon to the Dispensary of the Royal Infirmary, Glasgow.

STOCKWELL, J., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Parish of Balfron, Stirlingshire, vice J. MacGibbon, L.R.C.P.Ed., deceased.

WATSON, W., M.R.C.S.E., L.S.A.L., has been appointed Surgeon to the Odd Fellows' Medical Association, Newport, Monmouthshire.

WOOD, G. V., M.D., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Newtownbarry Dispensary District of the Enniscorthy Union, Co. Wexford, Medical Officer to the Union Workhouse and Fever Hospital, and Medical Officer to the Constabulary, vice R. Carey, M.D., deceased.

Births, Marriages, and Deaths.

BIRTHS.

BAILEY.—On the 7th inst., at Grove-street, Liverpool, the wife of F. J. Bailey, M.R.C.S.E., of a daughter.

DEMPSTER.—On the 26th of Sept., at Beechworth, Victoria, Australia, the wife of Dr. Dempster, of a son.

FINCH.—On the 5th inst., at Stainton Lodge, Blackheath, the wife of R. Finch, M.D., of a son.

GOURLEY.—On the 4th inst., at West Hartlepool, the wife of S. Gourley, M.D., of a daughter.

SEELY.—On the 28th ult., at Oak-hill House, Weybridge, the wife George J. Seely, M.D., of a daughter.

WATCHORN.—On the 28th ult., the wife of Isaac Watchorn, M.D., of Nottingham, of a daughter.

WHITE.—On the 5th inst., at Great Wellington-street, Paisley-road, Glasgow, the wife of John White, M.D., of a son.

MARRIAGES.

MORIARTY—M'CARTHY.—On the 26th ult., at Cork, T. B. Moriarty, A.B., M.D., Staff Assistant-Surgeon, to Margaret, daughter of Alexander M'Carthy, Esq., J.P.

ROCHE—FRASER.—On the 24th ult., at Ipswich, Dr. W. B. Roche, of Colchester, eldest son of J. Roche, M.D., to Mary, twin daughter of W. Fraser, Esq.

SELBY—M'DOWALL.—On the 8th inst., at Kirkcowan, N.B., Robert R. Selby, M.D., to Margaret Martin, eldest daughter of Mr. Wm. M'Dowall, Seedsman.

DEATHS.

BASSETT.—On the 2nd inst., at the Royal Cornwall Infirmary, Truro, N. F. Bassett, M.R.C.S.E., for many years the House-Surgeon there, aged 71.

COWAN.—On the 24th of October, at the Green Mountain Hospital, Ascension, Frances Ann Mary, infant daughter of Dr. M. W. Cowan, Surgeon, R.N.

DANFORD.—On the 2nd inst., F. Danford, M.R.C.S.E., of Upper Dorset-street, Bryanston-square.

EDWARDS.—On the 6th inst., G. N. Edwards, M.D., of Finsbury-square, aged 39.

GARRINGTON.—On the 5th inst., at Nightingale-vale, Woolwich, after a short illness, Sarah, wife of Arthur M. Garrington, M.D., of Portsmouth.

GORGES.—On the 1st inst., at the Royal Naval Hospital, Haslar, T. E. Gorges, L.R.C.S.I., Assist.-Surgeon Royal Marine Light Infantry, aged 30.

LANE.—On the 8th inst., Henry Lane, M.R.C.S., L.S.A., of Stratford-upon-Avon, aged 43. Deeply regretted.

MILLER.—On the 7th inst., at Loanhead, near Edinburgh, Alexander Hunter Miller, L.R.C.P. & S. Ed., aged 25.

WHITE.—On the 3rd inst., John White, M.R.C.S.E., of Finchley, aged 62.

Medical Diary of the Week.

Monday, Dec. 14.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 1½ P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8 P.M. Mr. C. F. Maunder will exhibit Patients who have undergone Primary Excision of the Elbow-joint.—Dr. Richardson: "Further Experiments on the Effect of Exposing Animal Structures to Intense Heat." — Dr. B. Foster, of Birmingham: "Remarks on Etherial Cod-liver Oil." — Dr. Thudichum, "On the Spectroscope in relation to Physiological and Pathological Research."

Tuesday, Dec. 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ANTHROPOLOGICAL SOCIETY OF LONDON. — 8 P.M. Sir Duncan Gibb, Bart.: "Character of Voice in Asiatics, Africans, and Europeans." — Dr. Carter Blake: "French and Belgian Cave-dwellers."
PATHOLOGICAL SOCIETY OF LONDON.—8 P.M.

Wednesday, Dec. 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
OPHTHALMIC HOSPITAL, SOUTHWARK.—Operations, 2 P.M.

Thursday, Dec. 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
HARVEIAN SOCIETY OF LONDON.—8 P.M. Dr. Broadbent, "On the Pathology of Chorea and Hemi-Chorea."

Friday, Dec. 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Dec. 19.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

To Correspondents.

THE RECOVERING FOR PROFESSIONAL SERVICES.

A PECULIAR case, illustrating the difficulty of defining, under present circumstances, the precise significance of diplomas as licences to practise surgery or medicine, or both, came before the Walsall County Court on Tuesday week. A Mr. Kerr brought an action against a patient to recover the sum of £4 1s. for medical and surgical attendance. Issue was raised upon the plea that the plaintiff was not entitled to recover for the medical items when he was only qualified to practise surgery by the diploma of the Faculty of Physicians and Surgeons of Glasgow, which he possessed. For Mr. Kerr it was contended that, as a licentiate of the Glasgow Faculty, he was entitled to practise "surgery and pharmacy," and that the latter included the practice of medicine. On the other hand, it was contended that Mr. Kerr's diploma was recognised as a surgical diploma, and in no sense could "pharmacy" be a term convertible into "medicine." The judge decided in favour of the plaintiff, on the understanding that the verdict might be reversed if it should turn out that the Charter of the Glasgow Faculty stated that the licence possessed by Mr. Kerr only gave the power to practise surgery. The 31st clause of the Medical Act states that "every person registered under the Act shall be entitled according to his qualification or qualifications to practise medicine or surgery, or medicine and surgery, as the case may be, to recover," &c.

A London Student writes to direct the attention of the Medical Teachers' Association to the exorbitancy of the fees exacted by licensing bodies for their diplomas, and especially to the demand made upon the student for a second fee for the same examination after two unsuccessful attempts to pass; and he suggests that the great reform "needed" is to "smash" up the College of Surgeons and Physicians, and to substitute a Government examining body for the granting of licences to practise in medicine and surgery.

X. Y. Z.—As we have never seen the instrument alluded to by our correspondent, we are unable to furnish the information required.

R. W. S. should consult a registered medical practitioner.

AN INDIAN CORONER'S EXPERIENCE.

AN attempt has been made by the Deputy-Coroner of Madras, Dr. Mair, to determine the annual amount of mortality that results from unnatural deaths in India, with the view of pointing out in what manner unnecessary loss of life may be prevented. The result is given in a paper published in the *Madras Quarterly Journal of Medical Sciences*. The statistical data upon which Dr. Mair's observations are founded are derived from a large number of official sources, and if not absolutely trustworthy, are at any rate approximately true. There are many causes that render the ascertainment of the fact and cause of death difficult. Information as to the number of deaths has been until recently obtained from the vettyan—i. e., the grave-digger or burier of bodies,—who keeps no books, and speaks from memory; and as there are more than 300 burial and burning grounds in the city of Madras alone, it is easy to conceive how readily deeds of violence and crime may remain undetected. It is only when the police act upon chance information that suspicious cases are brought before the proper tribunal for investigation. Then, again, the Hindoos bury their first-born in their houses, and, though forbidden by law, they still evade the injunction. They, moreover, hasten, on the death of any friend or relative, to burn or bury the corpse. It is not difficult, under these circumstances, to understand how readily the grossest crimes may be perpetrated with comparative impunity. If the evidence of foul-play oozes out, the proofs of guilt are often destroyed by the fire. Dr. Mair believes that a more satisfactory state of things might readily be secured, with little offence to the prejudices of the people, by the proper regulation of existing grave and burial grounds, and declining to allow any interment without a satisfactory certificate from the district registrar. At present the registrars of deaths appointed under the Municipal Acts record the cause of death according to information tendered to them. Dr. Mair thinks that they should be instructed not to register any death whose cause is not satisfactorily explained, or, in cases of sudden death or death by violence, till the Coroner has been communicated with. It is interesting to note that the yearly number of murders in relation to population is stated to be rather less than in England. The whole number in India throughout its greater part is about 1425 a year, and twice as many females as males are murdered. The custom of forbidding the re-marriage of Hindoo widows leads to a number of child-murders, and there are plenty of individuals who systematically practise infanticide as a profession. Poisonings are comparatively uncommon. The estimated number of culpable homicides in India is 755 a year, or 1 in 171,426 of the population. Suicides amounted in 1865-6-7 to an average per year of 1256, or 1 in 19,273 of the population—less than in England; and suicide by drowning is the most frequently practised mode. Females are more addicted to self-destruction than males, owing to the severity and cruelty which is practised towards them. The total average number of accidental deaths in each twelvemonth in the whole of India cannot be stated; but in the Madras Presidency alone it is 6767 cases. Next to drowning, however, deaths by snake-bite and attacks by wild beasts are the most numerous; these two causes accounting for 20 per cent. of all accidental deaths in India. In the Madras Presidency the number of known deaths from snake-bite in 1866 was 1890; in 1867, 1810; from the attack of wild beasts, 313 and 334 respectively, and many instances of death from these two causes are never reported. The proportion of unnatural deaths to the total number of deaths from all causes is difficult to determine; but an approximate estimate shows that it is in the Madras Presidency about 2½ per cent. Dr. Mair, we should observe, gives the particulars which we quote, as indicative of the probable, and not the actual, truth in regard to the mortality of India; and he observes at the end of his paper that he does not look for much benefit from the devising of preventive measures as regards murder and suicide. The causes of accidental deaths, however, are readily removed—viz., in regard to drowning, by a proper protection of wells and tanks, the diffusion of proper instruction as to the means to be employed to resuscitate persons apparently drowned; in regard to snake-bite, principally by the offer by Government of a reward for the veritable destruction of every poisonous snake, and the adoption of a similar measure in the cases of wild beasts. Dr. Mair's paper is a very interesting one, and we hope it will not escape the attention of the Government.

Enquirer, A.—1. The 40th clause of the Medical Act says: "Any person who shall wilfully and falsely pretend to be or take or use the name or title of a physician, doctor of medicine, licentiate in medicine and surgery, bachelor of medicine, surgeon, general practitioner, or apothecary, or any name, title, addition, or description implying that he is registered under this Act, or that he is recognised by law as a physician or surgeon, licentiate in medicine and surgery, or a practitioner in medicine, or an apothecary, shall upon summary conviction," &c. Nothing is said about "accoucheur."—2. A jury would not convict if proper care were exercised, and the patient were satisfied with the attendant.—3. Not bound by law, but on every consideration he should so.—4. The fourth query is answered in the quotation we have given from the Medical Act.

Disgusted.—We quite concur with our correspondent in what he expresses regarding "a new phase in obstetrics." It is, however, unlikely that any respectable man would degrade himself and his profession by acting in the way described.

Dr. Gee.—The paper shall be inserted if sent at once.

L.R.C.P. Ed.—Not as a matter of right; but one might use the title with impunity, because no one would proceed against the user.

Kidderminster.—The facts are not recent enough for notice now.

THE TOBACCO CONTROVERSY.

IT is clearly from no want of ventilation that this subject has not been definitely settled. There are, moreover, a sufficient number of smokers in the world to afford scope for observation. Since the controversy was opened by us some years ago, it has been many times revived, and Mr. George Henry Lewes's recent article has set it agoing again. The *Express* of the 1st instant appears to have taken a common-sense and correct view of the subject. The absurdly exaggerated statements of the Anti-Tobacco Society and other enemies of the weed lose all their force by proving a good deal too much. We must set aside cases of excessive smoking, and those exceptional cases in which tobacco acts as a poison in any quantity. No doubt tobacco has a great deal to answer for, because smoking, like other tastes, and more than most, so readily runs into excess. Its worst effects are observed in persons below puberty, in whom it induces a peculiar kind of sallowness, functional palpitation, diminished appetite, and inaptitude for physical or mental energy: to say nothing of the expense attending it. It is liable to induce a similar train of symptoms in those who contract a habit of smoking a little, and but a little, in excess. We are told that among young soldiers, palpitation and deranged action of the heart are common enough from its use. A medical officer, noticing the frequency of muscular tremors and unsteadiness of hand among smokers, kept some statistics in order to determine whether there was any great difference between these and the non-smokers as regards rifle practice. He was, however, unable to prove, statistically, that the latter enjoyed any superiority of accurate shooting power. Tobacco among the poorer and labouring classes certainly appears to exert considerable influence in restraining the appetite. A man can apparently also bear a larger amount of fatigue in a given time with a small amount of food and a pipe than with the same amount "without his baccy." Of course he could, however, only maintain this within certain limits. After all, the physiological effect of very moderate smoking has not yet been defined; and the mental state, like the flavour of the weed itself, is incapable of being expressed in words. A man of somewhat bilious temperament, with an irritable, susceptible, nervous organisation—an individual whose nervous machinery wears and chafes in the working,—feels greatly soothed by the sedative influence of a cigar when his day's work is over; but he finds it increase his irritability when smoked before he commences his labours. The smoker tends to become a man of abstractions; facts and ideas, which at another time seemed hopelessly disjointed, will, with the aid of tobacco, arrange themselves in logical continuity under a state allied to what is called "unconscious cerebration." To the strategist planning a campaign in his closet with the aid of maps—to a poet, politician, or philosopher arranging the principles of his action,—tobacco is an aid by the property which it possesses of leading to mental abstraction; but to the man of action, who has often to analyse rapidly, decide promptly, and turn judgment into action, tobacco tends to induce hesitation and mental delay. We have lately been told by a French publicist, M. Emile de Girardin, in a vein of sober earnestness, that the acts and policy of the Emperor are the outcome of his habit of smoking. "To smoke is to dream wide awake," it is asserted. There is a tendency among modern French critics to seek in physical causes an explanation of some of the more abstruse moral and social problems of past and present times. The theory, no doubt, contains a certain amount of truth; but it is becoming every day more minute and despotic in its application. The reason is, no doubt, that it gives scope to the play of a writer's fancy to couple mental and moral peculiarities with physical causes, and it affords an opportunity for clever, interesting, and ingenious speculations in depicting character. Balzac started the device by his close analyses of human nature and human actions, and Taine, Sainte-Beuve, Dechanel, and others have amplified the process into a theory, which, like many others, will pass away, or be supplanted by others equally ingenious and interesting.

Old Swan.—We are not aware of any law compelling druggists to act in the manner suggested; but no sensible man would neglect, for his own protection, to do so. After the 1st of January every druggist must enter the sale of poisons named in Schedule A of the Act.

Mr. F. Liley.—The substance cannot be made artificially.

T. and H.—We imagine the twenty who reside at a distance of five miles from the head-quarters of the Club can legally vote. The case is doubtful as regards the others who enjoy the privileges of the Club to which our correspondent refers.

B. W.—We know nothing of the compound named.

COLONIAL DEGREES.

Dr. T. S. Bulmer.—The Medical Registration Office refuses to register colonial degrees simply because the Medical Act does not provide for their registration. We agree with our correspondent that good colonial degrees should be registerable. There is a general feeling to this effect in the Medical Council, and in any amended Bill provision will be made for this purpose.

WE have received several communications from practitioners in Oldbury in reply to Mr. Dempsey's letter. We purpose, as the questions involved are of a very important nature, to return to the subject shortly.

Mr. N. Hannah.—The regulations and the subjects of examination may be obtained from the Secretary of the Pharmaceutical Society, Bloomsbury-square, W.C.

Penrya.—We should think that the last edition of Haydon's Dictionary of Dates, Cates' New Dictionary of General Biography (published by Longman) or Macaulay's Essays, would be very suitable books.

COMPREHENSIVE SPECIALISM: "GREWCOCK'S HOSPITAL."

WE lately remarked on the peculiar shape which specialism has taken in Nottingham under the inventive genius of Mr. Grewcock; but as we did only scant justice to the originality of this gentleman, we return to the subject. Any pushing practitioner who wants to know how to turn the latest hints that he may have picked up in a visit to London to good account, should go to Nottingham, and see Grewcock's Hospital for himself. We gather from the accounts that reach us that there is a good deal about the institution that can only be appreciated by seeing it. For example, there are two great sign-boards to this effect:—

> "Grewcock's Hospital for Consumption."

> "Hospital for Diseases of the Throat, Heart, and Internal Organs. Also, for the Cure of Club-Foot."

Evidently the sign-boards are an effective and striking feature of the establishment. Next to them is the name of the sole founder and factor of the whole specialty—Grewcock. There is no partner in the glory, no gradation of officers such as one finds in similar institutions in town: consulting dignitaries, physicians, surgeons, apothecary. All this is superseded by one sufficient name—founder, physician, surgeon, and perhaps apothecary, in one—Grewcock. It generally takes a whole staff to work one specialty; but here one man works two or three diverse specialties. For next to the wonder occasioned by the perfect isolation of the name of the single officer of the establishment, is the wonder excited by the diverse and comprehensive character of the complaints to be treated in his hospital.

> "The wonder was, and still the wonder grew,
> How one small head could carry all he knew."

We have special hospitals in London, but they are awfully special. They peer into a man's throat, but, in strict terms of the sign-boards, decline to recognise the deposit or perhaps the cavity in his lungs. They were established for the two express purposes of seeing the throat, and ignoring every other part of the system. But it is reserved for Nottingham to enlarge our idea of specialism. Here not only the relation of the throat diseases to consumption is perceived, but the relation between consumption and club-foot, which, until Grewcock's Hospital was established, had always been regarded as diseases wide apart. It must be hard for men or women with anything wrong with them to get past Grewcock's Hospital. If they have neither consumption nor club-foot, nor diseases of the throat, there remain the heart *and internal organs*. From this last touch we may gather that in Nottingham, or rather in Grewcock's Hospital, the heart is one of the external organs. But this by the way. How is any poor man to get past Grewcock's Hospital without turning in. The one thing not recognised is the skin; that is reserved probably for another sign-board, which had not appeared when our last despatches left Nottingham. Students of comprehensive specialism should visit Grewcock's Hospital.

Mr. Beaumont.—Our correspondent has no reason to be anxious about his health. He should place himself in the hands of a qualified practitioner.

TREATMENT OF SNAKE-BITES.

To the Editor of THE LANCET.

SIR,—With reference to the several articles which have recently appeared in your columns on the nature and treatment of cases of poisoning from the bites of venomous serpents, I shall feel obliged if you will allow me to suggest that a hypodermic syringe with a blunt nozzle, made from a model of the tooth of the reptile, and charged with any neutralising fluid, would, if used immediately after the bite, in all probability, save the patient. As the nozzle would fit accurately into the puncture, the fluid would be brought into immediate contact with and destroy the poison, if not entirely, at least sufficiently to afford the sufferer a fair chance of recovery. It is well known that the cases that do recover are those in which only a small portion of poison has been introduced, owing to the previous exhaustion of the reptile; and I believe that the employment of the instrument I have suggested would at least reduce the most serious cases to a level with those of comparative unimportance. Sulphurous, nitric, carbolic, or tannic acids, iodine, bromine, chlorine, or whatever reagent might be found on experiment most effectual in neutralising the poison, might be employed, and those most exposed to injury might carry the remedy in their pockets.

With regard to the constitutional treatment of these cases, there is one remedy which, so far as I know, has not yet been employed. I allude to the hypodermic injection of atropia. Its stimulant action upon the heart and central nervous apparatus of respiration is such as to place it in the highest rank of stimulants (the remedies indicated in snake-poisoning); while its *immediate* effect, when employed subcutaneously, renders it peculiarly adapted to cases such as these. M. Preyer's researches have demonstrated that it is an unfailing antidote in cases of poisoning by prussic acid, and I have no doubt it will be found equally valuable in some syncopal conditions which occasionally constitute alarming symptoms during the administration of chloroform.

Your obedient servant,
CHARLES TAYLOR, M.D.,
Surgeon to the Nottingham and Midland Eye Infirmary.

December, 1868.

Mr. M. C. Halton.—1. Dislocation of the femur on to the dorsum of the ilium is a serious accident. This answer, it must be remembered, does not necessarily imply that any blame is to be attached to the house-surgeon.—2. An Editor is justified in making inquiries in self-defence before publishing any document seemingly reflecting upon any individual.

Dr. Sturges.—The smaller institution should certainly be done away with. It is not required in the interest of the parent institution, and is out of place in its present site.

M.D. should apply to Dr. Marion Sims.

SANITARY STATE OF BRIGHTON.

A CORRESPONDENT writes in regard to the above:—"A rapid exodus is taking place from Brighton on account of the spread of scarlatina and the defective state of the drainage. The atmosphere on the Cliff in a south wind is laden with a most offensive smell. Of course, so long as the Corporation and Town Council are not disturbed, they will not turn their attention to this crying evil; and unless some powerful influence is brought to bear on these estimable bodies, they will not move in the matter. I therefore beg you, Sir, to use your influence in stirring these gentlemen into activity. If matters remain as they are another season, and solid sewage is washed on the beach, and pestilential odours prevail in certain winds, the Corporation and Town Council will have the town to themselves, and good bye to Brighton as a fashionable place of resort. I have been in the habit of coming here for fifteen years with my family; but unless some improvements are made, I shall soon unfortunately have to call myself an ex-, instead of a present 'winter inhabitant.'"

M.R.C.S.—1. The child can be taken to B. to vaccinate; but B. cannot claim payment from the public funds.—2. It is declared semi-officially that the provisions of the Pharmacy Act will not be enforced against any registered medical practitioner.

INSANITY IN THE NAVY.

IN our recent notice of this subject, the per-centage of recoveries at the Royal Naval Hospital for 1866 was accidentally stated to be only 25 per cent., instead of 47 per cent., of the total admissions.

Constant Subscriber.—Beside the question of legality, the use of the title M.D. or Ph. D., under the circumstances named, is in every way to be condemned.

COMPULSORY ATTENDANCE ON LECTURES.

To the Editor of THE LANCET.

SIR,—We have been requested by a very large number of medical students to forward the enclosed letter to you, and to ask of you the favour of allowing it to appear in your next issue of THE LANCET.

We are, Sir, your obedient servants,
WM. ROBERT JONES, Charing-cross Hospital.
ARTHUR M. GRAHAM, " "
TH. W. T. WILLIAMS, King's College Hospital.
E. W. HUMPHREYS, St. Bartholomew's Hospital.

Store-street, Bedford-square, Dec. 8, 1868.

To the Editor of THE LANCET.

SIR,—May we, students of metropolitan hospitals, venture to ask you for a corner in your valuable and influential journal to make known the vexatious and disadvantageous conditions under which we are compelled to seek our professional knowledge—conditions which go very far to retard legitimate study. We refer particularly to the practice of enforcing what is called "regular" attendance on lectures. We regret extremely that it should have fallen to our lot to have to take up this subject; but knowing that we have examinations to pass, and being very desirous of "getting through," we submit that all other considerations may justly be held to weigh but little with us. Nor do we anticipate much in the shape of opposition from lecturers in what we are about contending for, because it is fair to assume that every lecturer who has the interest of his pupils at heart would admit the desirability of affording to them every assistance in the way of time and opportunity for study. Our grievance, then, is simply that, having hard work to do, and being willing and anxious to do it, we are positively denied the necessary time and opportunity by the operation of enforcing attendance upon lectures. From nine o'clock in the morning until nearly five in the evening are we required to dance "regular" attendance upon often irregular lectures; and just adding one hour for toilet purposes and getting to the hospital in the morning, and about the same time to get home in the evening, we would ask you, Sir, what time remains for hard reading and study? We studiously avoid going into the subject of the quality of the lectures we are obliged to give presence to, or seeking to determine the relative amount of the soporiferous element eliminated in the course of their delivery; our sole aim being simply to enlist your assistance and sympathy in our endeavour to get rid of unjust and unfair conditions of study, and to bring about an improved state of things in reference to this matter.

In conclusion, we may heartily commend to the serious attention of the lecturers generally the opinion expressed by no less an authority than Mr. Lowe when distributing the prizes at St. Mary's Hospital in May last (*vide* THE LANCET, May 23rd, 1868): "He (Mr. Lowe) objected strongly to the system of compulsory lectures. ..... Like Mr. Simon, he would allow the student to acquire his knowledge in the manner which best suited his temperament.....If a lecturer were good, no compulsion would be necessary to induce men to listen to him; if bad, it was surely a waste of time to compel students to hear him." We are, Sir, your obedient servants,

MEDICAL STUDENTS.

THE annual meeting of the subscribers and friends of the Manchester Ladies' Sanitary Association was held last week, when the results of the recent appointment of a "sanitary mission woman," to visit the houses of the poor in certain localities, were reported to be so satisfactory that it is proposed, as soon as the requisite means are forthcoming, to appoint another. That the sanitary condition of a house is largely dependent on the character of its female occupants there is no doubt, and the influence of a sensible, practical woman cannot be better employed than in disseminating the principles of hygiene among her less intelligent sisters.

Senex.—Only for the present year. Apply for particulars to the Secretary of the College of Surgeons.

Querist.—We fear that our correspondent will find it very difficult to obtain all the information he requires. The 1st question physiologists have striven, and striven in vain, to determine. The late Mr. Buckle, mistaking the object of their inquiry, gave the relative proportion of the sexes as statistically determined. Consult Dr. Matthews Duncan's late work, Carpenter's Physiology, and Dr. Allen Thomson's articles.—2. That must depend upon the state of health of the woman. It could have no beneficial effect, we think.—3. Yes, she may, although it is improbable she would

THE SOURCE OF ANIMAL HEAT.

A CORRESPONDENT suggests that the source of animal heat is referable to the friction of the blood passing through the minutest ramifications of the arterial and capillary systems. He thinks it cannot be due to chemical changes taking place in the digestion and assimilation of food, because an infant is quite warm when born. This is not a new idea, and, we fear we must add, not a true one. We venture to think that Nature is not to be outdone by man, who greases his machinery to diminish friction. The Esquimaux eating his candle at both ends, to keep himself warm, little suspects he is doing the reverse by preventing the friction on which his animal heat depends!

Esquirer.—The evil is one of which we hear from all quarters, and for which there is at present no very effectual remedy. The chief culprit is the medical man, eighteen miles off, under whose protection the party in question virtually practises—i. e., visits, vaccinates, attends midwifery, &c. This said party is wise in his generation, and does not seem to use any false title implying registration as a medical man. Complaint should be made in the first instance to the principal under whose wing he practises.

THE difficulties of *E. R.* really arise from a want of familiarity with facts which have long been recognised by the profession, and with phrases which have a perfectly understood meaning.

THE ROYAL SANITARY COMMISSION.

THE omission of Mr. Bally Denton's name from the Royal Sanitary Commission appears to have given rise to complaint in some quarters. We should have been very glad to see Mr. Denton on the Commission, as a man who has given great attention to sanitary subjects, especially in regard to rural districts.

E. B., (Leeds.)—We regret that we cannot comply with our correspondent's request, as it has never been our practice to do so.

THE SYSTEM OF APPRENTICESHIP.

To the Editor of THE LANCET.

SIR,—Whilst appreciating the importance of the points contained in the address from the British Medical Association to the Medical Council, it appears to me that one very important subject is omitted or but slightly alluded to in the 11th clause. This is, Who is to fill the position formerly held by the apprentice? It is certain that men are not sent out of London with the knowledge of practical pharmacy that is required of them as assistants; few who have not served an apprenticeship leave the hospital capable of prescribing in practice. For the last fifteen years, apprenticeship has been practically ignored, and students have entered hospitals at once; the six months' pharmacy can be obtained in the dispensary connected with the hospitals, the supporters of which are the legislative body, and the presumptive right of the general practitioner to the admission into the profession by apprenticeship has been forgotten. I have known assistants who after completing their curriculum have come into the country to learn the composition of pulv. ipecac. co., pil. hydrarg., &c. The surgeon thinks that a student, having completed his studies, is able to perform the duties of dispenser, and to prescribe in cases of emergency; but frequently the employer dare not trust him to send out one bottle of medicine until he has been two or three months with him, and then, in all probability, he leaves to pass his examination with the knowledge that has been filched out of the general practitioner. However much unqualified assistants may be objected to, there must be such a class of men existing. No qualified man would undertake the work of dispenser, book-keeping, &c., for any length of time. So, if unqualified assistants, as students or apprentices, are ignored in the profession, a class must spring out of it, as dispensers, accoucheurs, and empirics. This is witnessed in every town.

In the present legislation all knowledge is supposed to emanate from hospitals alone; hence we have intrepid surgery, hasty midwifery, and careless compounding; whilst humanity, nature, and nicety are in abeyance. Besides all this, the general practitioner has been deprived of the pleasant little sums that were very acceptable in his day as premiums. The apprentice is a bygone; and as in all matters of importance the general body of the profession is not consulted, so the legislation and tuition remain in the hands of an interested and select few. Your obedient servant,

December, 1868. VOX PRÆTEREA NIHIL.

Scalpel, (Cork.)—We quite agree with our correspondent. The "special" system is becoming a nuisance. Hardly any locality is too small to possess a special hospital of some sort. Such institutions differ from mushrooms and fungi, however, in not growing up in waste places or damp cellars. We may yet see the end of these advertising offices; for many of them are neither more nor less than this.

A Subscriber to the Medical Benevolent College writes to say that as apparatus for teaching Natural Philosophy and Chemistry will be needed as supplementary to the appointment of a Graduate of the London University for the preparation of the pupils of the College for matriculation, he will be happy to forward £5 to the Head Master if a subscription be opened for the purpose.

Mr. Charles James Fox is thanked.

Hippocampus.—If his M.D. degree is an English one, our correspondent is fully qualified to hold a Poor-law appointment.

Dr. George Redford.—We think most decidedly our correspondent should decline. The forms supplied by the Pharmaceutical Society, to be filled up, contain information relative to the nature of the certificate required.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. W. Ogle requests us to correct an error in the report of his observations at the above Society, published in our impression of last week. He said "that alkaline mucus could not replace saliva as a digestive fluid, because the saliva owed its virtues to its ptyalin, and not to its alkalinity; that it would convert starch even when made slightly acid, and that excess of alkali was as fatal to its efficacy as excess of acid."

NORFOLK AND NORWICH HOSPITAL.

WE learn from the *Norwich Mercury* that the patients in the above hospital desire publicly to express their grateful thanks for a dinner of roast pheasant, provided for them on the 1st instant by the bounty of His Royal Highness the Prince of Wales.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Thompson; Dr. Humphry; Dr. Wilks; Sir Duncan Gibb; Dr. Ogle; Mr. J. Z. Laurence; Mr. C. J. Fox; Dr. Thomas, Sheffield; Dr. Rayner, Uxbridge; Mr. Hill, Newport; Mr. W. A. Smith; Mr. Tennant; Mr. Biggall; Mr. Garraway; Dr. Marcet; Mr. Inglis; Mr. Sadd; M. le Baron Haussmann; Mr. Nowell, Halifax; Mr. Grosvenor; Mr. Montefiore, Brighton; Mr. Dean; Mr. Moore; Mr. Redford; Mr. Levinson; Mr. Searle; Mr. Symes, Eltham; Dr. Hodges, Edinburgh; Mr. Browning; Mr. Wills; Mr. Peel; Mr. Bullock, Warwick; Mr. Woolley, Heanor; Mr. H. Jones; Dr. Pearse; Mr. Costhupe, Manchester; Mr. Howard, New Buckenham; Dr. Gee, Liverpool; Dr. Maclean; Dr. Ridley, Preston; Dr. Barter, Bath; Dr. Hoyle, Bideford; Mr. Aldridge, Wakefield; Mr. Johnson, Darlington; Mr. Colman; Mr. Hewett, Wigan; Mr. Quick; Mr. Phillips; Mr. Andrews, York; Mr. Clough, Edinburgh; Dr. Cookson; Mr. Gibbs, Wingate; Mr. Hannah; Mr. Reed; Mr. Pattison; Mr. Denton; Dr. Wadsworth, Emsworth; Mr. Settle; Mr. Henry; Dr. Sealy, Weybridge; Mr. Roberts, Festiniog; Mr. Hulle; Mr. Hughes; Mr. Lock; Dr. Scriven, Lahore; Dr. Waring; Dr. Cowan, Plymouth; Dr. Murphy; Mr. Beaumont; Dr. Alcock; Mr. Burgess, Bristol; Mr. Helps; Dr. Bulmer; Dr. Tatham, Ponteland; Mr. Cosgrove; Mr. J. Dixon; Mr. Hawksley; Mr. Smiles; Dr. Pringle, Parramatta; Mr. H. Sweete, Weston-super-Mare; Dr. Wood, Dunston Lodge; Dr. Niemeyer, Magdeburg; Mr. Sedgwick; Mr. Pratt; Mr. Hedges, Aylesbury; Dr. Walker, Stanley; Mr. W. R. Jones, Llanfyllan; Mr. Townsend; Mr. Rae, Walsall; Dr. Williams, Denbigh; Dr. Gill; Mr. J. de Zouch, Liverpool; Mr. Ransford, Cardiff; Dr. Gibson; Mr. Gifford, Launceston; Messrs. Bayley and Co.; Mr. Leggatt; Mr. Ward; Dr. Eade, Norwich; Mr. Taylor; Mr. Murray; Mr. Rayner; Mr. Manley; Mr. Dawson; Dr. Dudfield; Dr. Garrington, Portsea; Mr. Lubbock; Dr. Gourley, West Hartlepool; Dr. Beverley, Norwich; Dr. Miller, Edinburgh; Mr. Hardy; Mr. Duncan; Mr. Watson; Dr Branch; Mr. Tweedale, Stanland; Mr. Bavey; Mr. G. Jones; Dr. Selby, Kirkcowan; Mr. Turner; Mr. Langston; Mr. Williams, Thurso; Dr. Garrett, Hastings; Mr. Carter; Dr. Woodward, Worcester; Mr. Stephens; Mr. Poole; Dr. Lightbourne; Mr. Shaw; Mr. Vickers; Mr. Ford; Mrs. Baines; An Assistant-Surgeon; Constant Subscriber; X.; W. P.; Senex; E. B.; Spectator; Chirurgicus; Anthropological Society; Hippocampus; Disgusted; Old Swan; F. and H.; Scalpel, Cork; H. W.; ——, Penryn; X. Y. Z., Dublin; M. H.; Querist; H. A. E.; L.R.C.P. Ed.; Fermont, Horbury; Harveian Society; Epsilon; Several Medical Students; B. W.; P. G.; H.; C. D.; &c. &c.

California Medical Gazette, Scientific Opinion, Edinburgh Daily Review, North Wilts Herald, Brighton Gazette, Surrey Advertiser, L'International, Rochdale Observer, Nottingham Guardian, Kentish Mercury, Lincolnshire Chronicle, Indian Medical Gazette, Liverpool Albion, Gateshead Observer, Brighton Times, Parochial Review, York Medical Gazette, Bucks Herald, Melbourne Chemical Gazette, and *Journal d'Hydres* have been received.

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